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ABSTRACT

This handbook has been designed to serve as a resource book to familiarize teachers with the basics of nongrading. The opening chapter provides the general rationale, followed by a concise explanation of the philosophy and theory of nongradedness. Other chapters deal with the need for nongradedness and its implementation, the role of the teacher, scheduling, grouping, and pupil evaluation. The basic issues involved in developing a sequential curriculum are then discussed, and their implications for the language arts, mathematics, and social studies programs are dealt with in detail. A report on visits to five nongraded schools is given to show some of the processes of implementation and the variety of practices which may be employed. The document also has an extensive bibliography. (MBM)

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A TEACHER'S GUIDE TO NONGRADING

edited by

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Foreword

This handbook has been designed to serve as a guide or resource book for teachers interested in familiarizing themselves with the basics of nongrading. It provides in a concise way crucial information about key issues relating to nongrading. Fundamental theory is presented along with pertinent information on implementation and practice.

The book opens with a chapter prepared by the editors to provide a general rationale for the various presentations. A concise explanation of the philosophy and theory of nongradedness is then presented. This is followed by a brief but pertinent exposition of the need for nongradedness. From there it launches into a general consideration of the following key issues relating to this process: the role of the teacher, scheduling, grouping, and pupil evaluation. The basic issues involved in developing a sequential curriculum are then discussed, and their implications for the language arts, mathematics, and social studies programs are dealt with in considerable detail. To show the uniqueness of the process of implementation and the variety of practices that may be encompassed within the framework of nongradedness, a report on visitations to five nongraded schools is presented. The book ends with a very extensive bibliography which should prove to be most valuable to those who wish to build up a professional library or to pursue a major study in depth of selected aspects of continuous progress.

To the following members of the 1968 - 1969 Education Class of St. Francis Xavier University who worked so diligently to research the issues presented in this volume is owed a special debt of gratitude: Donald Crosby; Sister Cullen, C. N. D.; Rosemary Donovan; Sister Dubois, C. N. D.; Basil Favero; Sister Keenan, C. N. D.; Joseph Morris; Dini MacDonald; Vaughn MacDonald; Cotter MacGillivary; Gregory MacIsaac; John MacNeil; Murdock MacPherson; Robie MacPherson; Raymond Stapleton; Joseph Van Zutphen; and Patricia Wong. The interest they showed in this project and the effort and energy they expended attest to the fine quality of young people who are entering the teaching profession today.

Words of appreciation are also in order for Mr. Angus MacGillivary of the Fine Arts Department whose cover so imaginatively depicts the basic theme of this book.

Francis Kuzsman

Teresa MacIsaac

1 The Need For Change

What are our Canadian schools doing to our youth? Vast numbers of children are herded together into overcrowded buildings. Inside the schools they are divided into classes for instruction on the basis of grades—a neat civil service device for classifying large numbers of pupils. The graded structure of school organization developed in North America over one hundred years ago, long before psychology began feeding educators significant data regarding how children learn. And yet, in spite of what psychologists have discovered about individual differences in learning, we still continue to categorize students into stereotyped little blocks called grades.

Under the graded structure, children, for the most part, are fed the same program at the same rate, assembly line style. And then, round about the end of June, teachers solemnly convene to "play god" regarding the educational destinies of the pupils whom they teach. They deliberate for many hours on a decision that is not realistic for many of the students to whom it applies; that is, to retain them in a particular grade or to promote them to a higher grade. Most of those who are retained will not improve their achievement. Many who are promoted to the next grade will be hopelessly lost.

Students who do not have the resources or the stomach to fit into this neat, conventional package deal usually fall by the wayside. Our school dropout rate and our failure rate attest to the large number of pupils who do not or cannot fit into this predetermined mould. Our crime and delinquency rate, the cost of welfare and unemployment and the frequency of unrest and disorder among the young point to the failure of our schools to provide the kind of education that will enable our youth to cope realistically with the society in which they live. It is high time that we take stock of the current situation, assess its causes, and make a concerted effort to find solutions.

Too often the child's natural curiosity and appetite for intellectual growth are destroyed by the very educative process that is supposed to foster it. Practices in the Canadian classroom tend to reflect a philosophy characterized by short-sighted mediocrity rather than long range excellence. Too many Canadians regard education as a process of absorbing vast quantities of information. Nonconformity, diversity, and creativity find little acceptance in our classrooms. Education has been tied to a shoestring budget and bureaucratically imposed standards of mediocrity that failed to nurture an atmosphere conducive to learning. In fact, education in the true sense of the term has been all but forgotten in the rat-race of chasing the little packets of prescribed learning that accompany our grades. The price we pay for these practices is high. It is reflected in the large number of young people who develop a real aversion for learning and who yearn to get out of school at the earliest opportunity.

The challenge to educators today is to provide the kind of education which is realistic for our times. All too often our schools have failed to cope with the realities of change. Even today there exists a tremendous gap between educational theory and practice, between what we know about education and what we practice in our schools. Indeed, among an alarming number of teachers there is an aversion to educational theory that militates against effective assessment of current practices and the implementation of needed changes. Obsolete educational practices have been continued to the point where they have become institutionalized, and their long continued perpetuation has given them an aura of respectability that they do not deserve. Such disdain or distrust of new ideas can only lead to obsolescence and mediocrity.

Nongrading is one of the most promising and fascinating educational developments of this century. The nongraded pattern of school organization provides the framework within which the most promising educational innovations of our times may be worked together to produce the kind of school organization and program which will facilitate the best possible education for our nation's youth. Nongrading, however, is not for the timid. It requires a bold departure from the thinking and practices of the past. It requires educators with a sound, well-thought-out philosophy of education. It requires educators who are very human people, who have enough love for the children whom they teach to impel them to implement the kind of school program that will best accommodate the needs of each and every child.

Nongradedness militates against obsolescence in the sense that it provides a structure that is sufficiently flexible to accommodate continued innovation. Educational change, if it is to be effective, must be a continuing process. Education cannot stand still; either it moves ahead or it falls behind! Innovations which are not continually refined and evaluated quickly degenerate into outmoded practices. What is needed is a spirit of innovation on the part of educators, a willingness to try, to test, to refine, and to discard. The facilitative disciplines are feeding us new educational ideas at such a rate that if we ever hope to keep up with them, we must work zealously and systematically to transform these ideas into meaningful educational practices.

Why is there such a tremendous gap between educational theory and practice? We have many institutions of higher learning and educators who devote themselves to producing new ideas via educational research. We do not, however, have a similar dedication at the level of transforming educational theory into practice. Indeed, sometimes on the part of the academic community there appears to be what amounts to outright scorn for transforming ideas into practice. The practical end is not given the prestige, the attention, the resources, and the funds that it requires. We need more institutions that will become centers for educational innovation, that will give their staff members the time, the money, and the facilities to creatively implement new ideas.

The product of such efforts should be more models of innovation that will provide the example and the results needed to excite teachers, administrators, and school systems to change. We are not looking for models that can be reproduced as such but which can be adapted and refined to the peculiarities of local situations. We need the kinds of models that will trigger a chain reaction of educational innovation throughout this land. The achievement of such results cannot be left to chance. Their achievement is such a highly creative act that it must be given the resources and prestige that are currently afforded research.

Throughout history what has been done provided man with motivation and guidelines for what he can do. The result of the development of schools that are models of innovation, schools where change knows no bounds, will be the tantalization of the imagination of teachers throughout our nation. The development of these schools will offset the effects of the vast numbers of models of obsolescence than now exist. It could bring a general commitment to innovation on the part of teachers. To this end all teacher educators who are genuinely concerned with giving each child the best possible education for him must commit themselves.

2

The Philosophy and Theory Of Continued Progress

The major criticism levelled at our present graded system is that it is obsolete and inadequate at the task of accommodating individual differences. While those committed to the notion of nongradedness do not purport to possess a panacea for all our educational problems and ills, they do believe that it is the kind of school organization that can best, at present, deal with each child individually, allow him to progress at his own rate of learning, and utilize to the fullest an ever expanding body of knowledge.

Helen Heffernan, in her assessment of grade standards, pointed out that they originated as an administrative device without due regard for learning differences among children. This prompted her to pose the question: "Can we justify the continuation of rigid grade standards as a basis for classifying pupils?" (2:357) Her answer follows:

> Fixed grade standards are untenable in the light of what is now known about the best ways to meet the needs of children. A plan for continuous growth is widely recognized as more desirable than the experience of annual evaluation followed by promotion and nonpromotion. Learning is continuous and must progress according to individual rate and ability. Schools cannot, therefore, justify the continuance of annual promotion or retardation as sound practice. (2:357)

In 1960 John Goodlad and Robert Anderson conducted a survey in eighty-nine communities that claimed to have nongraded schools in operation. One of the questions sought to discover the reasons behind the introduction of nongraded schools in these communities. Forty-five per cent of the respondents indicated that improved attention to individual differences was one reason. Thirty-five per cent of the respondents offered reasons that demonstrated a reaction against the "lock step of grading". The respondents urged that grade barriers be eliminated and that a system of uninterrupted or continuous progress for pupils be introduced, thereby eliminating practices of retardation and nonpromotion from our system of school organization. Also mentioned in the survey was the need for greater flexibility in pupil placement and grouping. (3.35) These findings of Goodlad and Anderson serve to verify B.

Frank Brown's philosophical rationale for the nongraded school: "... there is nothing so unequal as the equal treatment of unequals." (1:35)

Nongradedness, to be effective, must amount to more than a mere removal of the grade system and the substitution of levels. It must involve a total rearrangement of the administrative organization and the curriculum to bring them in line with the needs of youth. Consequently, it seeks to guarantee the right of every child to progress through school in a smooth, natural way according to his individual abilities.

Philosophically it means to be committed to continuous progress and to the individual. Once a philosophy exists, every act of education should be measured against it. Frank A. Dagne and Donald W. Barnickle suggest two very specific areas of commitment:

> ... first you must believe in the importance of educational diagnosis and the need to adequately check and reassess it, maintaining your readiness to seek out and employ suitable diagnostic tools. Secondly, you must want to provide educational prescriptions on as individual a basis as possible, with the flexibility to adjust them as the learning situation of the child changes. You must also be committed to a wide spread of alternatives, permitting any assignment or activity that improves a child's opportunities to learn provided this activity or assignment is not detrimental to the group as a whole. (4:65)

B. Frank Brown, under whose auspices the nongraded Melbourne High School in Florida developed, emphasizes that a good curriculum must allow for continuity and sequency. This allows for one learning experience to build on a previous one while leading to the next. The relationship between nongrading and curriculum reform has been described as follows:

> While nongrading is not a device for curriculum reform, it tends to make obvious the needs in this particular area. Current developments in the area of curriculum reform tend to parallel the organization of the nongraded system. Stress is now being placed on the development of a longitudinal pattern of curriculum organization. The development of this type of curriculum pattern has been marked by efforts to define the knowledge, values, and skills peculiar to the various disciplines and which tie together

> the curriculum of each subject to make it into a unified whole. The nongraded pattern of organization provides a structural framework in which such a unified curriculum may be implemented more readily. (5:2)

Melbourne High has developed an appropriate placement curriculum that implements a system of phased learning permitting students to continue at their own rate. The result is continuous learning in a vertical progression. Each pupils progresses upward through the school program at his own rate of speed. (1:49)

In summary, the philosophy of nongradedness may be said to hinge upon three fundamental principles:

1. Each child is an individual with his own ability to learn.
2. Curriculum must be adapted to suit individual needs and to challenge each child's ability.
3. The experience of success must be a common occurrence and the notion of failure must be eliminated and replaced by the concept of continuous progress.

John Goodlad, pointedly summed up the purpose and potential of nongrading in the following statement:

> Nongrading, for those who believe that differences in children are primarily differences in industry and application, that elementary schools exist to impose an arbitrary series of tasks, that the curriculum is a fixed body of lore, can scarcely be regarded as a panacea. But neither is it a panacea for those who believe that love is enough to induce children to learn, or that standards have no place in elementary education. And nongrading certainly is no panacea for the lazy who would rationalize their problems out of existence.
>
> To those who have chafed under the harness of grade requirements, who have striven nobly to provide for individual differences within their own classrooms only to run afoul of school structure and nonpromotion dilemmas, nongrading appears as a light in the darkness. To follow the path the light reveals is not easy, but thousands of teachers in school systems of some thirty states are now treading the nongraded path and finding the experience most revealing. Thousands more are at least taking a long hard look along its length to see if it might lead them to more satisfying teaching.

> Nongrading is an organizational device but it is more than that too. It is a way of viewing a school program, and the variable, spurting, lagging ever upward progress of the learners in it. (4:6)

Thus it is readily apparent from a review of appropriate literature that the value of nongrading cannot be questioned. In fact, its creative implementation holds open to teachers the greatest education challenge of our times.

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3 The Need for Nongradedness

Nongrading has been endorsed mainly because of dissatisfaction with the promotion policies, reporting practices, and learning situations in our traditional schools. There is a great deal of evidence to indicate that traditional school practices are not in keeping with pupil realities. The variability of child development defies the kind of rigid ordering of children's attainments that is common in the conventional school structure. Research has indicated a difference in mental age of four years among first grade pupils, and as the grades progress, this spread increases. No child progresses evenly in blocks. He spurts ahead in one area and lags behind in another. For example, if a student has a lack of reading ability in any grade level, promotion is only going to compound this lack of achievement. But if all other areas are up to par, nonpromotion is only going to cause frustration. So what is the teacher to do? It is a continuous educational dilemma that each educator must face. There is never a uniformity of achievement in any one class or grade. A teacher assigned to a fifth grade class does not in actuality teach the fifth grade. His range may be anywhere from the second to the ninth grade. This has been indicated by research into the range of achievement of students arbitrarily labelled as the fifth grade. (4:3)

The manner in which teachers evaluated pupil progress in the past deserves careful scrutiny. Marks have always been the clarion pronouncing success or doom in the graded structure. But the fairness of the evaluation of teachers has long been disputed. Most teachers are too overburdened with work and numbers of students to give fair evaluations of how each individual in his class is progressing. There is also considerable doubt as to whether teachers are competent to prepare adequate evaluation instruments. The conventional marking system itself is ambiguous and influenced by many more factors than the simple learning of the child. For these reasons, standardized achievement tests have been used as the major guideline for placement in most nongraded schools. They are regarded to be a more accurate and reliable means of determining pupil achievement, particularly in the basic skill areas.

A problem in the graded pattern of school organization is the variance between ability and achievement that is to be found among children of any designated grade. Does any child belong in one specific grade? Pupils cannot be neatly packaged and expected to perform equally well in different subject areas. An allowance must be made for variability among individuals at any grade level. No two children achieve at exactly the same rate, and our present graded structure disregards this factor of pupil variability. The emotional effects of promotion and non-promotion can be very damaging to the child. Failure to promote a student because of a lack of achievement in one area of his work while he is achieving satisfactorily in other areas can be psychologically harmful and can destroy motivation for further learning. Failure is just as demoralizing to the child as it is to the adult. The feelings of inferiority it engenders destroys the self concept of the child.

Research findings have indicated that students advanced or retarded in one learning area are not necessarily advanced or retarded in others. If children could be more uniform with regard to ability and attainment, they might fit neatly into the concept of a grade a year. But this is not so. Pupils tend to achieve above or below grade level with the result that these grade levels become increasingly burdensome to teachers who see the conflict between grade standards and the realities of pupil development. (4:42) Highly intelligent and high ability children should be allowed to move more rapidly through the system and low achievers more slowly. This is not possible in our present graded school system.

The stereotyped pattern of the graded school system demands a stereotyped individual as a learner. But the nongraded school promised to be different. It is designed to implement a theory of continuous progress for the pupil. It means movement from the simpler to the more complex material at a speed to be determined by the ability and achievement of the student. Since the differences among children are great, and since these differences cannot be substantially modified, school structure must facilitate the continuous educational progress of each pupil. (4:52)

The major advantages of the nongraded school are increased motivation, more emphasis on creative thinking, unblocking of aptitudes, and greater facilitation of learning in depth. The greatest strength in the learning process in the nongraded school is that each youngster is pinpointed individually in each subject area. (1:208)

Today in most schools education is a by-the-grade and by-the-bell affair. Young people creative in their own right are being forced to live in a world created for them and handed to them. They make few decisions by themselves and do little independent work. Education is not geared to self-discovery and self-realization. (1:8)

But the nongraded school offers a new challenge. The emphasis is on young people as individuals, and programs are tailor-made for them. Competent students are not forced to wait, nor are students advanced before they are ready. They progress at their own pace, with independent work being emphasized. Education becomes "release, quest and discovery rather than restraint, regurgitation, and rote memory." (1:8) The student is largely responsible for his own education.

One of the biggest mistakes in the graded system is the notion that we can measure intellectual progress in time terms. In thus packaging subjects and students we give the child the impression that he has done something rather than the feeling that he is doing something. It inhibits the student from doing original creative work. Too frequently in conventional schools students work for the sake of teacher or parental approval rather than for the sake of learning. Stress is being wrongly placed, as far as the education of the child is concerned. He is not being educated to gain real satisfaction from the learning process. How can we expect a child to become a continuous learner if the school does not prepare him for this?

The graded organization, as seen by B. Frank Brown, is like an ice tray guaranteed to freeze into rigidity everything that is put into it. Iconoclasts have condemned it as "a cage for every age". (1:27) Just because something has been done for a long time does not justify its continued existence. The modern age of man makes more demands upon our educational system than ever before. The graded system is an obstacle to our present needs for diversity and individuality. The trouble with the graded school lies in the area of process. It stifles curiosity, wonder and imagination and blends the student into a pliable and adjusted blandness. It is an obstacle to the development of student individuality. (1:32) In the dilemma of the grade, the dull, the average, and the bright are all retarded in one way or another. The graded structure has generated mediocrity, and the result has been to make the grade a sort of intellectual limbo. If we are to take the ceiling off learning, we must do away with the graded structure.

In the nongraded system the individual student pursues courses in which he has the ability to achieve. To provide sufficient flexibility, schools must strive to develop the type of organization in which the number of years in school, the rate of progress, and the subjects covered will be determined by the capacities of the individual students rather than by the collective capacity of the class.

The nongraded school attempts to get the student to assume responsibility for his own education and to develop both direction and thrust. By unbridling the student and giving depth to the curriculum, it will help the student to realize his full potential and become a more active participant in his education. Taking the brakes off learning and letting the students make their own little discoveries appears to be just the lever needed to make learning a more enjoyable and rewarding experience.

To the question "In what grade does our child belong?, there is an obvious answer. Each child belongs in several grades, depending on his achievement in the various subject areas and his mental and emotional maturity. The truth of the matter is that youngsters advance irregularly. Grades, to have meaning, according to John I. Goodlad, denote graded textbooks, graded teachers, graded students, and graded expectations. But students in today's society are not graded. If the students are still not graded after more than one hundred years of effort to perfect a system of graded subject matter, graded textbooks, graded expectations, and non-promotion designed to thoroughly grade them, then perhaps it is about time we quit trying. (2:42) Grade demarcations wall off what was studied last year from what is being studied this year, and what is being studied this year from what will be studied nxet year. Grades are barriers to continuous pupil progress and continuous learning. The removal of grades promises to free teachers, children, and parents from grade symbols and presumably to open the doors to freedom from these symbols and the restrictive educational practices that they suggest. Grading provides a neat way of classifying large numbers of children for custodial purposes, but it is an uncomfortable and restricting structure when consideration is given to the diversity of the individuals we have in society. B. Frank Brown best described the limitations of the graded structure when he said that "there is nothing so unequal as the equal treatment of unequals." (1:35)

The vertical organization of the school should provide for the continuous, unbroken, upward progression of the learner, with due consideration for the variability among learners in every aspect of their development. The school organization, therefore, should provide for differentiated rates and means of progression toward the achievement of educational goals. It should provide for continuous progress with no regression. Non-promotion practices simply force the tedious repetition of subject matter and do not foster real student achievement.

Nongrading can help to meet the special educational needs of talented students, slow learners, and the educationally disadvantaged. The nongraded structure less often stigmatizes the retarded or slow learner, and all students achieve the essential goals of each unit before advancing to the next. There is no social promotion and confinement to the one-year one-grade formula.

Nongrading, it is assumed, will reduce the student's experience of failure because the pace is too fast and cheap success because the pace is too slow. A word of caution is in order regarding optimism about nongrading. Nongrading may bring many benefits for our school children. Yet, nongrading should not be introduced because "it is the thing to do." It is a significant factor in school improvement only as it is seen and used by teachers as a means to significant ends that they wish to accomplish.(5:236) Thus it is not a panacea or an end in itself. It is a means to an end, and that end is to educate and develop each individual in society to the limit of his potential, but at his own pace.

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4 Implementation

What is involved in establishing a nongraded school? Nongrading is not the sort of innovation that can be legislated into existence. A lengthy period of serious study and planning must precede its introduction. The project must have the approval and support of the local school board, education officials, administrators, teachers, and general public.

The principal of the school in which the pilot project is to be tried must be a dynamic force in his educational system. He must be willing to give leadership and guidance. He must be willing to initiate experimentation. He must be the kind of person who can sell the program to the public. He must be firmly committed to the philosophy of continuous progress.

Despite the key role that the principal plays in implementing nongrading, he cannot do it alone. The enthusiasm and support of his teaching staff is an absolute must. Getting the support of the teaching staff often proves to be the toughest problem in implementing nongrading. Too many teachers tend to be conservative and traditional. Many become indifferent and some outright hostile to changes in school organization. If teacher opposition proves to be a real problem in introducing nongrading, staff changes may be necessary.

In most cases it has been found that an effective program of in-service training has won the support of the majority of the staff. The approach used will differ with each administration and each school. Certain factors will decide whether or not the first step will be an information campaign aimed at the entire staff or only those staff who are immediately concerned. This will be the first question to settle. Goodlad and Anderson have suggested that "the formation of intimate discussion groups involving the teachers directly affected and gradually expanding the circle of participation would seem to bring the best results." (3:91) The preliminary questions and problems could be ironed out before expanding the circle to include the entire staff. In a small school system, this may mean a meeting of the elementary teachers of primary or grade one, and eventually a series of meetings with the secondary school staff. In a larger school system meetings may take place on a school by school basis.

The grade-minded, subject-minded teachers are the most likely to oppose such an innovation. Elementary teachers are less likely to resist if given ample time to weigh the arguments and examine the evidence presented. Eventually, the entire staff should become involved in the planning. It may be that the administration will find less resistance than anticipated. This will depend on the amount of readiness within each school. In schools where continuous concern exists regarding promotion, evaluation and individualizing instruction, the concept of nongradedness will not be difficult to introduce.

Informing the staff may be done in a number of ways. The principal may send out reports on discussions of non-grading which had taken place at administrative staff meetings. In service workshops on the subject may be held for all interested teachers or the topic may be brought up at a local staff meeting. Once staff approval to investigate the merits of the nongraded school has been obtained, all materials available on the subject should be sought, existing nongraded schools should be studied, and if possible, visits to nongraded schools should be arranged.

Goodlad and Anderson have suggested that the staff engage in the following activities early in the study phase of implementation.

> First, then teachers in graded schools must recognize any dislocations which exist between their educational goals and the framework within which they work. The discrepancy between graded structure and certain present-day beliefs about instruction becomes apparent when teachers seriously analyze even such a limited array of data as achievement test scores.
>
> Next, teachers should try to relate these data to the concept of the graded school. It becomes immediately apparent that few children correspond their various attainments to the uniformity implied by grade levels. To make any sort of provision for pupil individuality, the concept of gradedness must be violently distorted.
>
> The issue then becomes one of deciding whether to retain the graded structure, with all the necessary distortions, or whether to abandon it in favour of the non-graded structure. (3:210-211)

Once approval of the staff has been obtained, it becomes necessary to define clearly the objectives that are to be realized through the implementation of nongradedness. This must be done in the planning stage because objectives, clearly defined, provide purpose and direction for all educational activities. A school district which sets out to meet its objectives may create for itself some important new products, or may alter some older ones. The monumental task, of course, is the revision of the curriculum in order to accommodate the idea of continuous progress. Dufay describes the nature of the revised curriculum as follows:

> The revised curriculum must exceed the mere listing of topics to be covered. It must consider skills to be developed, cite sources of information for the teacher as well as for the student; it must recognize the need for sequential development. It ought to direct teachers to the means of satisfying the needs of the brighter student, of the slower student, of EACH STUDENT. (2:156)

Who develops the curriculum? It has been suggested that local staff committees, organized according to academic disciplines, have this responsibility. It has been found to be very effective to take models developed in the new curriculum projects and to adapt these for local use. Considerable time and effort must be devoted to adapting these models to the needs and interests of pupils in a particular school. The students must be carefully tested. Individual profiles must be drawn up on each student. And then, on the basis of this information, the staff are to engage in the pre-planning phase of their program.

The following hints regarding curricular development have been given by Robert F. Savitt:

A. Significant curriculum change can take place in a relatively short period of time.

B. A vertical curriculum in the field of language arts (and other curriculum areas also) can enhance educational opportunities for pupils.

C. An extensive amount of inservice education for staff members is required if a vertical curriculum is to be properly implemented.

D. The proper implementation of a vertical curriculum requires a re-analysis of organizational structure, deployment of staff and pupils, and a refinement of teaching materials. (2:156)

Curriculum committees set up in the various disciplines should define clearly the objectives of the various courses and the concepts, themes, problems, or issues, and the values and skills which will provide the organizing threads for the curriculum in each discipline. Then careful consideration must be given to selecting materials for the various achievement and interest levels which will be most effective in developing fundamental ideas and skills. It must be pointed out that a variety of materials are an absolute necessity. A well-stocked library must be developed, and this will entail extra cost. Money previously spent on frills must be reallocated for hard core essentials. It is high time that we clearly define our priorities and allocate our educational budget accordingly.

Experience has shown that it takes at least one year of intensive study and effort to transform a school or school district from a graded to a nongraded structure. During the transitional year success will depend largely on the quality of leadership. Two approaches have been outlined by Goodlad and Anderson. They are the gradual approach and the "swift-stroke" approach. In the gradual approach, implementation begins at the lowest grade level and expands to a more advanced group each year, but requires a period of three or more years before all grade labels are dropped. The "swift-stroke" approach calls for the abolition of existing grade levels over the entire span, as of a given time. It is up to the staff and administration of each school or school district to decide which approach is best for them.

Regardless of how good the quality of the original plan for introducing nongradedness is, it cannot be implemented successfully without gaining general public support. Many educators believe it would be difficult to sell a nongraded program to the public. While publicity does pose some problems, it is usually one of the least difficult aspects of implementation. B. Frank Brown has described the problem of selling nongrading as follows:

> The problem of selling parents on the idea of innovations in education is really no problem at all; yet many school administrators are reluctant to enter what they consider a "no man's land". Every day the head of a school must umpire so many minor agitations that he is hesitant to initiate for discussion anything which might prove to be a major upset. The very nature of his job conditions him to a cautious, don't-rock-the-boat frame of mind. This unfortunately is a serious deterrent to new ideas of inventiveness and flexibility in the educational enterprise. Every school community must assure its school leaders of "freedom from fear" to study, experiment, and change. (1:203)

School administrators must overcome the idea that parents do not want change. Most parents do want change and will support action to bring it about if they think it will improve the education of their children. Parents cannot be expected to support a program with which they are not familiar. It is the direct responsibility of the administration to communicate information about the school's programs and procedures to the public which it serves. Early in the transitional stage a public meeting should be called to clarify and gain general support for the project. An effective starting point at such a meeting would be to present an appraisal of the effectiveness of the traditional graded school. Statistics regarding dropouts, failure rates, repeating, and achievement at different grade levels are bound to engender public surprise. The public should then be made aware of the advantage that the nongraded pattern of school organization has over the traditional graded structure.

The degree of public support will be a major factor in determining how extensively nongrading will be implemented. Very progressive communities may want to implement nongrading on a large scale. Most communities will want to be more cautious. This may not prove to be a disadvantage. Introducing nongrading on a pilot basis for a limited number of students will give administrators a chance "to work out the kinks" before extending the innovation throughout the entire school. For the more cautious, B. F. Brown suggests the spin-out approach. This is a technique whereby the school introduces a new practice alongside an old, and the catalysm of the new spins out the old. (1:209)

B. F. Brown, in his discussion on selling the program to the community, brings up the questions parents tend to raise most frequently regarding nongrading and suggests possible answers. (1:213 - 216) It might be appropriate to end this section with an examination of these questions. The most common questions and suggested answers may be summarized as follows in catechism form:

Question: Does individualized learning tend to widen the achievement gap which already exists between the talented and the untalented?

Answer: This does not pose a problem because the level of learning will be raised for both groups.

Question: Does a student graduate earlier from a nongraded high school?

Answer: No, the purpose of the program is to challenge the students. More able students can finish their high school careers by doing Advanced College Placement work.

Question: What happens to the student who transfers from the nongraded school to a graded school?

Answer: The transfer need not cause disallocation if his record of achievement is translated into graded standards. He just moves into the grade suggested by his achievement.

Question: What determines when a student will move to the next higher phase of learning?

Answer: His demonstration of proficiency for more advanced work should determine the time of his move, not the coming of the end of a semester or a calendar year.

Question: Will students get credit for courses which they skip in a system of phased learning?

Answers: No. Students who pursue a more advanced program will not receive credit for the courses they skip but will receive advanced standing for the courses they take.

No doubt, as the process of implementation proceeds, many other questions may arise. The important thing is that the public be given the opportunity to pose these questions to the proper educational authorities. If public meetings do not cater to a significantly large number of parents, it might prove worthwhile to utilize the press, radio, or television.

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5 The Role of the Teacher

> The primary role of the teacher in today's schools, whether they be graded or nongraded, is to help each child relate learnings sequentially to each other and horizontally to learning in other curricular areas. (3:87)

In carrying out this role, the teacher in the nongraded school has an advantage over his confreres in the graded structure in that he has a good deal of control over the time allotment, subject matter and the nature and pace of learning for a diverse class group. He designs the teaching method and determines student progress on the basis of student interest and ability. In such a set-up, he is able to create a course suited to each student's educational needs. The teacher in the graded school, by contrast, has some freedom to divert from the prescribed program of studies but does not have the administrative structure to enable him to vary the program to meet the needs of each child. He is restricted, confined, and often frustrated in his attempts to cope with the needs of the students in his class by the very organization of the school system in which he works.

On the other hand, the teacher in the nongraded school is free to guide the timing and pacing of learning in accordance with what he knows about the learning act itself. As a result, he employs a program in which he plays a vital part in formulating and executing learning experiences for his students. This set-up provided an excellent challenge but also brings an added responsibility for the teacher. He must now decide when, how, and at what speed a child is to progress. In this decision making we find one of the hallmarks of the nongraded system, the use of educational decisions rather than system decisions. (4:13)

In the nongraded school everything physically possible has been arranged to optimize learning. Teachers are expected to take each pupil from wherever he is and guide him to achieve as much as possible. Teachers can no longer blame student failure on previous teachers. If he did not learn fractions in one teacher's class then, it is the job of the current mathematics teacher to teach them rather than to blame the previous teacher who did not. Coverage of material no longer becomes a panacea. The question changes to "Has the student learned it?" from "Has the student covered it?"

It is not going to be easy to assume the responsibility called for in the nongraded classroom. No longer can the teacher go to the textbook room and check out a set of grade five mathematics books. However, with this responsibility comes a more rewarding experience for the teacher. The program is organized in such way that appropriate material at the correct level of difficulty is available for each child. There is no need to "bootleg" appropriate learning opportunities and the peace of mind gained from this is very satisfying. (4:14) The teacher is free to use his creative abilities to make the learning situation as meaningful as possible. He is not confined by grade requirements, content coverage, or strict rules regarding what he should teach or how he should teach it.

Grouping along meaningful lines becomes a reality. Students can be grouped by ability, achievement, work and study habits, or interests. The teacher is thus able to interact with a more homogeneous group of learners. Team teaching may also become a reality as students from different classes may be doing independent study while others are grouped to share the skills of two teachers.

The nongraded school system offers an opportunity for teachers to operate at their maximum level of effectiveness. They are allowed to be original, creative, and to use the teaching techniques that are most effective for them. It will probably mean more preparation and planning on the part of the teacher, but the satisfaction gained from teaching should be increased proportionately. It sets the stage for innovation and a more successful learning experience for both the student and the teacher.

These responsibilities seem to imply that the teacher in the nongraded school must be a gifted or creative person. Unfortunately, we have very few teachers in our schools who exhibit creative talent, but the schools themselves may have contributed to this situation. The environment plays a very important role in creativity. Research has in fact indicated that creative thinking can be improved by the establishment of conditions that are conducive to creative thinking. A friendly, informal and non-threatening environment leads to better idea production. (6:5) Now does this sound like our present schools? I would suggest not. To a great degree our schools have become institutions where the bell, the textbook, the truant officer, and the idea of one grade in one year has stultified creative effort. A more relaxed atmosphere would be conducive to more creative teaching. The importance of creativity cannot be overemphasized. Research has suggested that "only creative teachers can be truly effective practitioners." (5:3)

In the present graded school structure the creative teacher is often greatly restricted as to what he can do. In this situation the good teacher knows better than to try to adhere slavishly to unrealistic school expectations, but unless he has a wise administrator and an understanding group of parents, he cannot provide openly for each pupil educational opportunities that are more appropriate than those decreed. He is forced to "bootleg such opportunities." (4:21) In the nongraded school, however, the administrative structure supports the teacher in his efforts to provide the proper educational opportunities for each child. He must help the student learn. As B. Frank Brown states, "He does not give a student an education but assists a student in getting it". (1:9) He is there to open the doors to new learning experiences, to allow the student to enter when he is ready, and to proceed at his own pace. The teacher's role changes from that of telling to that of directing and assisting students in their own individual quest for learning. In this situation the student is free to guess, to inquire, to explore, and to make mistakes while the teacher acts as a guide to keep his educational development moving so that each student may develop to his full potential. The image of the teacher thus changes from that of a fountain of wisdom to that of a remover of roadblocks. (1:147)

Another dimension of nongrading is that it brings the entire school staff together and makes the school more of a family unit. All must work together to move the students through the school program. Consultation and discussion become extremely important.

Although teachers may be a bit anxious and apprehensive about moving from a traditional structure to a nongraded school, this uneasiness is soon replaced by a feeling of accomplishment. A study made on one school system that had adopted nongrading found that teachers were enthusiastic about the new program because they derived greater satisfaction from their teaching. They are no longer harassed by demands to cover content, and they enjoy seeing children succeed as they work sequentially through the skill areas at rates commensurate with their abilities. (2:265)

In summary, the introduction of nongrading will impose greater professional responsibilities on the teacher. The variety and flexibility of curriculum decisions will require more planning, more creative teaching techniques, more assessment and appraisal, more concentration on the individual student, and closer harmony among the entire school staff. This may sound like a momentous task, but once undertaken, it soon gains the enthusiasm of most teachers. A survey of the reactions of teachers in nongraded schools has demonstrated this. It was found that:

a. There was a greater positive emotional involvement in teaching on the part of teachers who participated in the development of a nongraded plan.

b. At first there may be considerable anxiety, especially among traditionally orientated teachers, but, for the most part, in a short time, it gave way to satisfaction.

c. Teachers engaged in more planning and more cooperative study than in graded schools.

d. Teachers felt more relaxed about their work. (5:13)

Under nongrading teachers are forced to re-examine totally their role in the school environment. Hopefully, the teacher's task will be to guide and direct the child as he progresses in his own education at his own speed. The teacher is no longer the propounder of all knowledge but rather an agent or a catalyst in the child's pursuit of education.

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6

Scheduling

Since the day when each teacher drew up his own schedule for his self-contained classroom, administrators have had problems in formulating a master schedule. A well balanced schedule reflects the proper weighing and timing of a large number of variables. The major variables are the following:

1. Variable period length;
2. Variable rotation of classes;
3. Variable school year;
4. Variable class size;
5. Variable grouping of students;
6. Variable staffing;
7. Variable meeting pattern;
8. Variable total time allocated for each course;
9. Variable number of courses a student can take in any given semester;
10. Variable required subjects in the curriculum. (1:34-35)

Some of the preliminary work in developing a master schedule must involve considerations outlined by the provincial Department of Education. The Education Act of each province specifies the length of the school year and the minimum length of the school day, and the Program of Studies stipulates the courses to be followed in a particular year, the minimum or maximum time allotment for each subject, and the minimum number and required courses to be taken by a student. Local policy decisions regarding the number of electives to be offered, the level at which they will be offered, size and number of classes, the number and length of class periods, the number of teachers, the length of lunch hour and recess, and grouping arrangements for instruction are the other major determinants of the schedule. Thus it may be seen that the schedule by which the curriculum is organized stems from a set of values and specific decisions about instruction, students, and the schools. (5:33-34)

As the instructional program and the kinds of grouping that accompany it become more flexible, scheduling becomes more difficult. In the traditional school, most principals just had to schedule for instructional groups of fairly even size. In the nongraded school he must be prepared to schedule for independent study, small group discussions, laboratory instruction, and large group presentation. The tendency today is for the students to spend much less time on group presentation and more in discussion and independent study.

B. F. Brown has outlined the sorts of activities that are most suited to different forms of organization for instruction:

> What happens when students are in a large group?
>
> New units are introduced.
> Materials are presented.
> Explanations are given.
> Demonstrations are made.
> Evaluation takes place.
> Training films are shown.
> Tests are administered.
>
> What happens when students are in small groups?
>
> Students engage in active dialogue about their work.
> Problems are discussed.
> Interest is heightened through discussion.
> Students arrive at areas of agreement.
> Interpersonal relations are improved.
>
> What happens when students are in individual study?
>
> Students do research.
> They experiment.
> They examine.
> They read.
> They investigate.
> They consider evidence. (2:71-72)

The idea of drawing up a flexible schedule may seem overwhelming to the uninitiated. Many schools have implemented flexibility by adapting the kind of modular scheduling that was developed at Stanford University. This is a very complex kind of scheduling that requires the assistance of a computer. It is important to point out that flexibility can be achieved without a complex rotating schedule that requires the use of a computer to develop it. B. F. Brown gives the following specific example of how flexibility was achieved in Melbourne High with a fairly simple but highly effective form of scheduling:

> There are several ways by which flexibility is attained, but the one that teachers seem to prefer most is a plan whereby the entire class meets on Monday. On Tuesday and Wednesday a portion of the class engages in small group discussions with the teacher directing the discourse,

> while the rest of the class is doing individual research in the library in preparation for discussion. Thursday and Friday the situation is reversed and the students who participated in the discussions on Monday and Tuesday go to the library for individual research, while those who were doing research participate in small groups discussions.
>
> The accompanying schedule shows how the class structure is broken, assorted, and reassimilated.

FLEXIBLE CLASS ORGANIZATION

30 Students

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Group (15 Students)	Entire Class meets	Small Group discussions	Small Group discussions	Individual Research	Individual Research
Group (15 Students)	Entire Class meets	Individual Research	Individual Research	Small Group discussions	Small Group discussions

> Education is thus grouped, ungrouped, and smallgrouped. (2:77)

Flexible classroom organization can be implemented even in a traditional physical plant. It requires a rethinking of the use of a number of facilities. Most schools have a large auditorium which lies idle for a major part of each day. Effective utilization of such a room may meet all a school's needs for large group instruction. Facilities for independent study may be increased by replacing large tables in the library with study carrels. This change will also greatly increase the number of students who can be accommodated in the library at any one time. Traditional size classrooms may prove quite effective for small group discussion if part of the class is dispensed to the library for research.

The following is an example of a simple weekly schedule that could be used to provide marked flexibility to accommodate instructional groups of varying sizes and different kinds of instructional activities:

> The school of the future will schedule students in class groups an average of only 18 hours a week, instead of the present 30 hours. Twelve of the 18 hours will be spent in

> **large-group** discussions (12 to 15 students). In addition to these 18 hours, the average student will be scheduled for about 12 hours a week in **individual study.**
>
> The planning of class time is hardly complex enought to require professional time-study experts to construct schedules. If the school is interested in varying its time schedule, the formula is simple. Most schools have a six-period day and the student is scheduled for six periods. An example of easy variance with no computer required is:

Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Students meet classes 1 thru 6	Students meet only classes 1, 3, 5.	Students meet classes 2, 4, 6.	Students meet classes 2 thru 6.	Students meet classes 1 thru 6.

> On Monday, Thursday, and Friday students attend six classes, each of which is one hour in length. On Tuesday and Wednesday students meet only three classes and these are two hours in length. This arrangement affords a double class for all disciplines one day a week, which adequately takes care of the need for longer periods for science laboratories. (3:122)

The final schedule for each school should be a unique production that effectively accommodates all the major variables that affect the implementation of the instructional program. The following outline of basic principles underlying effective schedule making and the basic steps to be taken into consideration in drawing up a schedule should prove most helpful to those initiating themselves to the art of flexible scheduling:

PRINCIPLES OF SCHEDULE MAKING

1. Non-departmental organization for teaching is usually desirable and feasible for lower grades and in small schools.
2. Some election of subjects (especially in a departmental organization) is approved both for its educational soundness and its administrative expediency, except in lower grades.
3. The individual (mosaic) plan of scheduling should be used where there is any election of subjects.

4. Most class periods should be relatively long (fifty to sixty minutes) and, where possible, of uniform length. Double periods and odd-length periods greatly increase the difficulty of scheduling.
5. While the administrator holds responsiblity for schedule-making, he should nevertheless plan it as a cooperative function of his staff.
6. A teacher should have a free period (that is, free of scheduled duties) during each day if possible.
7. With the exception of a few courses, such as physical education, some health courses, shop work, and home management, there usually is little or no justification for separate grouping of the sexes even in the senior high school.
8. Separate grouping adds to the difficulties of scheduling.

If the foregoing principles are made effective, the work of schedule-making will be easier. The following steps may then be taken in the sequence shown below:

Steps in Schedule Making

1. Provide preliminary registration in the spring or just before opening of the fall term.
2. Have forms ready for conflict sheets, partial schedules, pupil assignments, and final schedules.
3. Assign teachers as advisors to students in registering.
4. Use separate conflict sheets for each grade; schedule the classes and plot conflicts.
5. Adjust as many conflicts as possible by shifting classes.
6. Adjust individual conflicts by re-registering students not otherwise taken care of.
7. Post completed schedule for try out.
8. Hold conference of staff for final adjustments of the schedule.
9. Post the final schedule. (9:90-99)

Studying schedules that have been drawn up for schools in which flexible nongraded programs have already been in existence for some time can provide many helpful hints for the administrator who is preparing to initiate nongrading. But, in the final analysis, each schedule must be a unique creation because each conglomeration of local variables will be at least slightly different from all other conglomerations.

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7

Grouping

The success of a nongraded school depends to a large degree on the effectiveness of the grouping arrangement for instruction. Grouping has been done on the basis of ability, achievement, interest, maturity, and social compatability. In the past, ability grouping has been the most common kind of grouping. Because of its prevalence, more research has been done on its effectiveness than on the effectiveness of other kinds of grouping. Goodlad has summarized the results of research on ability grouping as follows:

> 1. The evidence slightly favors ability grouping in regard to academic achievement, with dull children seeming to profit more than bright children in this regard. The advantage to bright children comes when they are encouraged to cover the usual program at a more rapid rate.
>
> 2. The studies of ability grouping in subject areas such as English, geometry, history, Latin, and algebra contradict each other, and results swing toward favouring ability grouping in promoting achievement only when, for example, content is enriched.
>
> 3. An analysis of many studies . . . suggests that curricular differentiation for the range of student variability represented in a given group is a more significant contributor to academic progress than is the basis for establishing the classroom groups.
>
> 4. Teachers tend to react more favourably to teaching groups in which the heterogenity has been somewhat reduced than to teaching groups selected at random. (6:7-8)

As a result of having examined research and having assessed grouping practices, the Research Committee of the Indiana Association for Supervision and Curriculum Development (1960) developed a series of propositions which ought to be considered as guidelines in developing a plan for ability grouping. They are as follows:

1. Ability grouping of elementary children by classrooms as a device for the improvement of instruction does not in itself produce achievement.

2. Ability grouping of elementary children by classrooms as a device for the improvement of instruction may be detrimental to the children who are placed in the middle and lower groups.

3. Ability grouping of elementary children by classrooms as a device does not appear to greatly influence the achievement of brighter children.
4. Ability grouping of children by classrooms using conventional methods, group intelligence test scores, and achievement test scores appears to favor unduly the placement of children from the higher socio-economic class in the higher ability groups.
5. Ability grouping of children by classrooms may militate against the development of general education skills, those skills which are required of all citizens.
6. Ability grouping of children by classrooms as a device to promote improved academic achievement may establish a milieu which emphasizes the attainment of academic goals at the expense of broader behavioral goals.
7. Ability grouping of elementary children by classrooms reduce differences to a very limited degree.
8. Ability grouping of children by classrooms utilizing mainly group intelligence test scores, standardized achievement test scores, and teacher judgement may penalize students who are quite creative.
9. It is unlikely that any type of grouping of children by classrooms will obviate the need for use of flexible grouping in the classroom. (6:8-9)

Many other studies have been conducted in the area of ability groupings, and the results are quite similar to those already mentioned.

Having thrown the light of research upon the subject, it would seem opportune to delve more deeply into the basic issues involved in ability grouping. Basically, it should be concerned with the value system of the society in which we live. The notion that ability grouping is good seems to be upheld by many people. The main concern of education is to provide the best opportunity for the total development of every student. Hence, it becomes necessary to see whether ability grouping meets the aforementioned standard and, if not, in what areas it has failed and what exactly can be done to remedy the situation.

Historically speaking, ability grouping has been in existence since as early as 1890 when Preston Search in Pueblo conducted ability grouping on a classroom basis. It came about with the introduction of graded classes which, in turn, were a result of an increase in the school population in a society which advocated universal education. Grading reduced the differences in age and experience, and ability grouping further narrowed the range of differences. Shortly after World War I, the Winnetka Plan was developed by Carleton Washburne. Other plans in the 1920's were Parkhurst's Dalton Plan and Morrison's Unit Plan. The results of these early ability grouping arrangements has been described as follows:

> The striking rise in efficiency of teaching or learning which was expected never materialized, perhaps because grouping in the 1920's was not normally accompanied by differentiation of method or curriculum . . . development of "needs theories" in the 1930's and 1940's put emphasis on multifaceted personality development and unique individual goals in place of a single-minded focus on academic competence and "minimum essentials" in the earlier decade. (5:302)

During the late 1950's emphasis began to shift away from personal and social adjustment as Russian advances in the space race made U. S. educators realize the need for greater rigor in their educational system. The 1960's have seen a continuation of emphasis on academic achievement, and surveys show ability grouping to be the prevailing procedure in urban school systems. (5:305)

Over the years a number of methods of implementing ability groupings have been tried. The most common have been the following:

1. **Grouping by age.** This method does not assure a teachable range of differences within a class.

2. **Grouping by failure.** This method of putting all repeaters together in one class is inhumane, inefficient, and productive of hostility and despair. The very existence of this kind of grouping bears testimony to the failure of ability grouping.

3. **Grouping by excluding the extremes.** This method aims to reach the so-called average group. However, it does not take too much experience to make a teacher realize that there is no such person as the average student.

4. **Grouping within classes.** A common practice within the self-contained elementary classroom is to form subgroups for teaching. This practice is not verp popular at the secondary school level.

5. **Grouping by schools.** In some cities special purpose schools accept students on ability levels. This is particularly illustrated in

special schools where admission is done on the basis of academic ability. Ability grouping by schools may occur either for the bright or the slow.

6. **Grouping by classes.** This form of ability grouping has been used for years, but it has been found to produce groups that fall far below homogeneity in ability. (9:20-22)

It would appear that ability grouping arose as a means of coping with individual differences. Although grouping by ability does narrow intellectual differences to a certain extent, it still leaves a wide variation within any classroom. Achievement, interests, and maturity are further areas which differ from individual to individual and which may serve to counteract the homogeneity that is supposed to be produced by ability grouping. A complication produced by ability grouping is that it tends to accentuate social class differences. In other words, ability grouping may not produce homogeneity because factors other than intelligence are also determiners of human progress. Furthermore, research evidence shows that narrowing the range of intelligence within a class does not result in greater achievement. (1:332) The quality of the teacher has proven to be more important than the grouping arrangement.

If ability grouping has not proven to be the most effective kind of grouping, then some other form must take its place. To group or not to group is not the question because "grouping of some kind cannot be avoided if for no other reason than the large number of children in our schools." (1:322)

The classic struggle has been between those who advocated heterogeneous grouping and those who favored homogeneous grouping. Now a third party is pushing the theory that you can group any old way you please." (3:26) This latter theory is sound if it is interpreted to mean flexibility in grouping. Studies are now being conducted on the different kinds of grouping that will help each child reach his full potential. Frank A. Dagne of Nathanson School and Donald W. Barnickle of Elmwood School, reporting on the nongraded concept as implemented in their schools, stated that "in some instances they are experimenting with small groups that have no homogeneity in order to capitalize on the benefits of diverse thinking and courses of action. (1:67)

There is no one particular pattern of grouping to be followed. If our main concern in education is to help every child reach his fullest potential, then our study of grouping should advance the values that are of grestest worth to the individual. These values can be achieved through various methods of grouping, other than or combined with ability grouping.

One method of grouping promoted by Goodlad and Anderson is grouping according to reading ability. This method of grouping is particularly popular in the elementary school. This criterion is a departure from the old graded system where grouping is largely according to age and the amount of subject-content to be covered for a particular year.

If children are grouped according to their ability to read, any one reading group would be made up of older and younger children. In some cases this particular type of grouping was severely criticized because it supposedly indicated a tendency to "grademindedness". It was also criticized on the grounds that there is repetition of some of the subject matter in the curriculum where older ones are transferred to a younger group because of reading ability. This problem could be overcome through the use of a variety of reading series.

Grouping according to reading ability is a form of achievement grouping. Achievement grouping has been found to be most effective when it is arranged according to achievement in different subjects. Students do not tend to have equal aptitude or interest in all subjects. Therefore, their achievement can be expected to vary from subject to subject. A student who achieves very well in English might not achieve so well in mathematics, and, therefore, his grouping arrangement for these two subjects should be different. Grouping by achievement, like other forms of grouping, is found to be effective only when it is seen and used by teachers as a vehicle to assist in adapting the curriculum and instructional methods to the peculiar needs of his students.

In order to accommodate a variety of types and sizes of groups, the school of tomorrow will have to be flexible in its scheduling, its staff utilization, its physical plant and organization for instruction. People learn by having materials presented to them in large groups, by discussing issues in small groups, and by working alone. Therefore, the school should provide for large group instruction, small group work, and independent study. The type of grouping to be utilized will depend upon the purpose of instruction. Large group instruction has been found to be very effective for presenting new material, giving instructions, introducing units, and viewing films. Small group discussion has been found to be an excellent vehicle for provoking student thought on controversial issues and questions.

Independent study has been found to be very effective in challenging a student to work to the limit of his capacity by studying in depth concepts, issues, and questions in which he is interested. It is very uneconomical not to vary the size of the instructional group. Teachers now spend whole school days presenting material to groups of thirty-five or forty which could be presented to groups of 150 to 200 in less than one hour. Large group instruction frees the teacher to spend more time in discussion with pupils, more time in guiding their independent study, and more time in planning.

If the school plant is traditional in design and does not accommodate groups of various sizes, it can be rearranged without too much cost. Installing doors to adjoin classes and knocking down a few partitions can provide space for large group presentation and small group discussion. Installing study carrels can provide the kind of isolation needed for independent study. Some of the most effective innovations have been introduced in traditional physical plants. The school that is modern when it is built quickly becomes out-of-date. Change is a continuing process as the search for improved methods is never ending. "Tomorrow's educational plans will be different from today's—how different, it is impossible to tell." (11:35)

Another method for grouping is on the basis of social unity. This means children are grouped according to interests, personalities, and similarity of backgrounds. This would provide the child with a sense of security which is an absolute need if he is to benefit from his learning experience. If children are grouped in this manner, they may feel at ease with one another. They may also learn more effectively because their interests are similar. Social class resulting from similar family backgrounds does have an effect on the child's learning ability because:

> We live in a society that uses a complex variety of communication systems and places a premium on learning the communication systems of the groups to which one would belong. (8:149)

The child is quick to perceive those class distinctions valued by society. If he is from a culturally deprived background and is in a group where the majority are not from such a background, then he may feel inferior and his ability to learn could be inhibited.

The main point to keep in mind in employing any one method of grouping is that it must be related to the educational objectives to be achived. One method of grouping may be quite appropriate for achieving one type of objective, but could be wholly inappropriate for achieving another. Today a tendency exists to group pupils on the basis of a number of factors. Flexibility is a must for success in grouping. If it is found that a certain type of grouping does not bring results, it should be changed immediately. If grouping on the basis of certain factors does not appear to work, then the criteria according to which grouping is done should be changed.

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8

Evaluation

by Donald Crosby

Measuring and evaluating pupil progress are not one and the same process, although the two are closely related. Educational measurement has been defined as "the process that attempts to obtain a quantified representation of the degree to which a trait is possessed by a pupil." (1:11) Educational evaluation on the other hand, is "a process in which a teacher commonly uses information derived from many sources in order to arrive at a value judgement". (1:12) Measurement of results obtained on tests provides objective evidence for evalution. In order to evaluate pupil progress properly, many factors other than quantitative evidence must be taken into consideration. Evaluation involves the measured professional judgement of the teacher regarding pupil progress.

Evaluation, if it is not to be haphazard, must always be in terms of objectives. In fact, it may be described as the process of determining to what extent a predetermined set of objectives have been realized. The relationship between objectives and evaluation has been described as follows:

> Goals (in education) are established on the basis of pupils' needs. Educational programs are established so that pupils can reach these goals and do so in a reasonably efficient manner. Finally, after the program has begun, information such as test scores and reports of observation of pupil behavior is periodically gathered. The success of the pupil in reaching the goal, and hence the success of the educational program is evaluated in terms of the objective. (1:2)

In addition to enabling the teacher to determine the degree to which educational objectives have been realized, evaluation helps the teachers to know his students as individuals.

> The second purpose is subsidiary to the first, since, naturally, if the teacher is intimately familiar with his pupils, he will be better able to determine the degree to which educational objectives have been achieved. (1:26)

Basic to the nongraded system is the idea of accommodating individual differences. This may sound like a simple theoretical proposition, but when it comes to implementation, it is not so simple.

Implementation requires that one go against many time-honoured practices. This conflict is well explained in this statement:

> Many argue that we live in a highly competitive society. Therefore, any marking and reporting system that removes the competitive element is 'soft' and unrealistic. The race and the "A" 's should go to the fittest. "There is, however, an essential difference between the schools' race and life's race. In life, we are relatively free to gravitate to positions commensurate with our abilities; to seek satisfactions and accomplishments in activities that lie within our capacities; not so in school! Up to the age of 15 or 16, the child is in school whether he chooses to be or not; he is asked to compete whether or not he wishes to. (7:379)

Marking is one of the most bedevilling problems facing the teacher in the nongraded school. Even within the farmework of the graded school, no system of marking ever proved to be really satisfactory. The problem becomes even more acute in the nongraded school where different arrangements for grouping and instruction introduce features that necessitate a different system of marking. The inadequacies of the traditional marking system really become apparent when it is used along with a flexible program of studies.

The use of percentages in marking is less common in the elementary school than it is in the high school. However, no clear cut alternative has emerged. Much experimentation has been done with letter marking. The possibilities and drawbacks of letter marking have been described as follows:

> It is not easy to sell a new story under an old title and cover. A, B, and C have been with us too long to be readily redefined. The use of symbols such as S and U in marking and reporting grew out of the desire to find a system more compatible with a philosophy emphasizing individual growth. Theoretically a slow learning child who seemed to be working up to his full capacity would receive an S. Conversely, a bright child who lagged far behind his ability would receive U. (7:384)

The rigidity of the traditional marking system makes it incompatible with a flexible instructional program. It is this marking system which enables the bright child who puts forward very little effort to receive high grades and prevents the slower child who puts forth maximum effort from receiving passing grades. It perpetuates many injustices by putting the system ahead of the student.

Continuous reassessment and realignment of the marking system is needed. It has been pointed out that "although research has uncovered some limitations and suggested some promising directions in marking procedure, no commonly accepted system has emerged from half a century of inquiry." (9:371)

Teachers should be encouraged to continue to experiment with different marking systems until they come up with one that will suit the needs of their particular instructional program. Without a proper marking system, the transition to a flexible education system in the nongraded school will not be possible.

The whole issue of reporting pupil progress is as complex as that of marking. Just as in the case of marking, no commonly accepted system has emerged that has been generally adopted in nongraded schools. The most common device for reporting pupil progress has been the report card. Its value has been assessed as follows:

> The report card in the graded school has failed to live up to its purpose—communication between the school and the home about the important business of learning. The report is so often misunderstood that it serves to initiate punishment at home without any intelligent analysis of what is causing the difficulty. Many parents examine the report in an emotional perspective because of its relationship to the matter of annual promotion. For a youngster to have to repeat a grade is often a matter of extreme embarrassment to parents. Consequently many of them view low marks on a child's report card, which might endanger promotion, as a personal affront. A way must be discovered to focus the parents attention upon the fundamental objectives of education rather than the pressure of the moment. The big problem is for the parent to understand the basis upon which the school constructs the report card. (2:177)

The report card, either alone or in conjunction with one or more other devices, is the most widely used device for transferring to parents and students information regarding pupil progress. Surveys reveal that there are six basic ways of reporting pupil progress. Each of the methods may be used singly or in combination:

Pass — Fail;
Percentage;
Letter;
Letters to Parents;

> Check-lists; and
> Conference with Parents. (11:373)

In the nongraded school, according to B. Frank Brown:

> A new kind of report card should reflect three kinds of information: (1) How the student's level of achievement compares with other students throughout the nation. This may be indicated only through the periodic use of achievement tests. (2) How the student stands in relation to his own ability. (3) How the student compares to the other youngsters in his group. (2:181)

In his nongraded high school at Melbourne, he introduced a novel element to reporting when he began using a "throwaway type of report card". (2:185) This not only reduced clerical work associated with two or three handlings of the report card, but more important, it demonstrated the school's confidence in its students in that it placed on them the responsibility to see that their parents were informed regarding their progress.

Many educators claim that the parent-teacher conference is the most effective vehicle for reporting pupil progress. The advantages of the parent-teacher conference has been described as follows:

> The parent-teacher interview has a number of advantages. It enables the teacher to describe in detail the individual way each child succeeds in class. The child is a person whose specific strengths, problems, work habits, worries, and ways of getting along with others can be described.
>
> The interview enables the parent to ask questions. It also provides an opportunity for the teacher to meet the parent and to judge from the parent's conversation something about the treatment the child apparently receives at home. Most important, the interview enables the teacher and parent to examine together the students progress and to plan together the method they may use for promoting the child's further growth.
>
> It demands considerable teacher time. Also, difficulty is often encountered in convincing every child's parents to come to school. However, it is recognized as being a very valuable means of promoting better individualized education for children. (5:31)

One of the main drawbacks to increased utilization of parent-teacher conferences is the teacher time it demands. The whole process of teacher utilization requires rethinking. Extra tasks cannot be performed properly by already overburdened teachers. In the future, if the teacher is to perform his professional role effectively, he must be freed from the vast array of nonprofessional tasks that sap his energy and time today. The assistance of clerks and aides is badly needed to free the teacher to devout his time to the professional aspects of teaching. In schools where teachers do not have the needed assistants, time can be gained for parent-teacher conferences by sending the children home on the days or afternoons when these conferences are held. The traditional hour allocated by many home and school organizations does not provide enough time for a meaningful exchange between parents and teachers.

In many of our traditional schools, evaluation is an end of the year affair that results in either promotion or nonpromotion. Research evidence prompts us to question past promotional practices. Studies have shown that "at all grade levels, promoted low achievers generally do better in school work than their non-promoted counterparts." (5:34) According to Goodlad and Anderson, "whether or not a child is promoted appears to depend more upon biological, economic, and social chance than upon sound educational design or how hard he works." (5:31)

Fear of failure used to be generally considered to be an excellent form of motivation. The fallacy of this belief has been pointed out by B. Frank Brown:

> Many administrators foolishly believe that the threat of non-promotion is a strong motivational device which keeps some youngsters working who would ordinarily loaf. Modern research has severely condemned the contrivance of non-promotion as a motivational technique. In fact, it is well established that repetition of the grade is of such little value that it probably does more harm than good. (2:178)

While non-promotion does not work, neither does promotion. The practice of promoting children regardless of their achievement is going to leave a large number of children in an instructional program that is too sophisticated for them. Wherein lies the answer?

Goodlad and Anderson have proposed the following solution:

> What is needed is an educational organization that facilitates continuous progress of all children in each of the various facets of their development. Is it not logical that children who are ready for more advanced work in reading

> should proceed to it, free from the artificial restrictions of grade barriers? Is it not logical that certain of these children, slow in arithmetic, should proceed slowly with appropriate work in this field? The time for us to abandon our Procrustean lockstep system that chops children to make them fit the norms is long past. Instruction has for too long been the handmaiden of organization. The long-term answer, then, is the elimination of those grade barriers that have given rise to a host of fallacious notions about pupil progress, of which the fantasy that children should arrive precisely at a given "norm" each June is most preposterous. **Non-graded schools** constitute a step in the right direction. (4:73)

While nongrading is no panacea for our educational ills, it does provide an organizational framework within which educational innovations may be blended to provide or facilitate the best possible instructional program for each child.

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9 Curriculum

Crucial aspects of curriculum development in the nongraded system will be considered in this presentation. An attempt will be made to briefly consider some conditions in society that necessitate an examination of curriculum in the schools. This will be followed by an overview of the general objectives of the curriculum of the nongraded school. Major attention will then be focused on considerations involved in planning and implementing the curricula to meet the needs of the students.

There are many characteristics of modern society which point out the need to examine what should be taught in the schools, how the content should be organized, and what educational atmosphere is most conducive to learning. Firstly, the young people of today are in a society which puts great pressure on them to continue learning in specialized fields. Various segments of society bring their concerns for learning to influence the schools. Due regard for legitimate concerns necessitates a careful examination of the goals of education and the curriculum designed to realize these goals. Secondly, today's society presents a problem of communication. Tension often arises among divergent groups from failure to understand one another. Our highly interdependent society demands that the school re-examine how students are learning to communicate with one another and to tolerate one another. Still another obvious element pressurizing today's school curriculum is the vast body of knowledge that is now available and the great variety of techniques for discovering and examining that knowledge. In today's schools much of what the students receive as knowledge is quickly outdated by new findings. In the past, there has been too much emphasis on coverage of facts without gaining an adequate understanding of the facts. John I. Goodlad points out that the most demanding of pressures on the school today is to create a curriculum which will effectively deal with the knowledge explosion. (2:151-152) Finally, modern society has given man much more leisure time, and this has tremendous educational implication. Each of these elements work together to influence profoundly the nature of teaching-learning experiences.

An adequate curriculum must contain all the basic learnings that are desirable for the students whom it will serve. The curriculum must therefore be planned to clearly state what students are to do and hopefully learn. It is precisely what students are to do and learn that forms the educational objectives of a curriculum. The aims of education or the objectives of the curriculum will be of ultimate benefit to the students only when school personnel, parents and citizens of the community agree upon them and try to realize them. According to John I. Goodlad, it is only when the basic concepts, the basic ksills, and the basic values and attitudes are approved by all elements of society that students will change their behavior for the good of that society and successfully learn (2:173) It is the task of the entire personnel of the school to set down the overall objectives of the school and the task of the teacher to set objectives for his particular discipline. But the work of the school personnel must not stop here. Each and every teacher must arrange the learnings of the students in some kind of sequence so that one learning builds upon another. Learnings must also be arranged side by side so that adequate scope is given to the basic concepts, values and skills as the curriculum is treated horizontally. And, finally, the teachers must select the focal points for learning through which the objectives of the school are to be reached. These focal points, or organizing centres, as they are modernly referred to, include units of work, historical events, films, and field trips. Such focal points determine the essential character of the curriculum. It should above all be stressed that each individual teacher is free in the final analysis to select those topics, problems, and issues that are suited to the maturity of the unique students with whom he deals. The readiness of individuals to learn is really the basic issue pertaining to what is to be taught in the new curriculum.

In planning the curriculum for the nongraded school, the prime concern must be the structure of each discipline. It is necessary, furthermore, that teachers decide what fields of study are necessary for a curriculum to be complete and of best help to the students. To do this effectively, Michaelis, Grossman, and Scott suggest that every teacher must examine two aspects of each discipline: (1) the basic ideas which form the structure of a subject and the method of inquiry associated with that particular subject, and (2) the various modes of thought of the different subject areas, such as the analytical, the empirical, the aesthetic, and the moral. (4:396-400)

The second consideration in planning a curriculum is to determine who should participate in the building of a sequential curriculum. This consideration involves the realization that curriculum supervisors, specialists, administrators, teachers, librarians, and material specialists all have some contribution to make and some guidance to offer in creating, implementing and evaluating the new curriculum. Special consideration should now be given to adopting for local use the various curricula that have been developed as a result of major curriculum development projects in the United States.

A third consideration must be the examination of new curriculum designs and materials to see how they may be adapted to the overall structure and organization of the school. Decisions must be made regarding the following factors: the nature of the objectives, the planning and utilization of the basic disciplines, the scope and sequence of various disciplines in the total curriculum, the tactics at the disposal of the teacher, the materials available, means of evalution, the relation of individual disciplines in a total or core curriculum, and finally, the feasibility of the use of the new curriculum. (4:398)

Regarding the first issue, the nature of objectivity, teachers should specify clearly and specifically the change of behavior they wish to bring about in the students, whether it be the development of basic understanding, skill in thinking, inquiring and learning, or basic attitudes and values. Teachers must insure that the particular objectives of their particular disciplines concur with the broad objectives of the school and that these objectives are realistic for the students whom they teach.

On the second basic issue of planning and utilizing disciplines it is indeed a great challenge for each teacher to fully understand the basic structure of his particular subject or discipline. Before a teacher can hope to teach a discipline effectively, he should have a basic grasp of the fundamental concepts of his discipline. In addition to this, every teacher should be familiar with the method of inquiry through which knowledge is gained in his discipline. The teacher must identify the specific methods of investigation of his subject, whether it be map reading in geography, creative writing in English, or the case study in history. It is this aspect of each discipline that fully accomplishes a change in the behavior of the students. It is thus the job of every teacher to adapt those techniques of inquiry to the individual needs of their particular students. Learning how to discover knowledge gives a child a whole new outlook on education.

On the third issue of scope and sequence, the most important point to be stressed is the needs of the individual learner. (4:401) It is above all the duty of the teacher to present to every individual student the content, material, and the learning experiences that will most effectively develop the basic understandings, skills, and values at his level of sophistication. The basic ideas of any discipline, therefore, must be presented to the learner in more complex ways as he progresses through various stages of development. This is what is meant by a sequential program. If a student develops the basic activities of classifying data and testing conclusions, for example, then he should carry out these activities later on with more complex material and in a more efficient manner.

On the fourth issue of tactics, materials, and evaluation procedures to be used by the teacher, it has been stressed that new curriculum designs containing content outlines, teaching plans, and suggested methods of instruction should be of help to the teacher as guides rather than as directions regarding what to teach and how to teach it. (4:402-403) Every learning situation is unique and teachers, therefore, must adapt research findings to meet the particular conditions of the students whom they teach. In the area of methodology, particular emphasis is now put on inductive teaching. The inductive technique emphasizes independent learning for each student. This involves forming concepts, generating hypotheses, drawing conclusions, and testing them in new situations. Realization of these facts requires that the teacher change his role from that of a presenter of knowledge to that of a director of learning. An evergrowing variety of materials are at the teacher's disposal to aid him in his task. These include transparencies for overhead projectors, films, slides, model kits, pictures, graphs, charts, diagrams, documents, letters, and maps. The materials that are selected by the teacher support the goals of the particular unit and the overall curriculum and suit the needs of the learner for whom they are intended. The new curriculum requires a guide on novel ways of evaluating student performance which are in keeping with the emphasis of each course. Evaluation under the nongraded curriculum becomes, above all else, a continuous process. The teacher constantly revises his appraisal of each and every learner.

The feasibility of adopting or implementing a sequential curriculum will depend largely on the competency of the teaching staff. In-service training programs for teachers, adequate school facilities and equipment, a community which is willing to give financial support to new curriculum projects and the assistance of administrative and supervisory people are all necessary.

It has already been stated that new designs for curricula should be helpful in guiding the teacher rather than in prescribing to her what to do in the classroom to achieve a teaching-learning experience for the learners. It is the task of every teacher of every particular discipline to examine the various techniques and materials that have been developed and to choose those which will be most helpful in their local programs. Such planning can only be carried out effectively when each teacher clearly defines the objectives of his particular subject, realizes the value of that subject to the students, examines how to present the basic ideas and how to ask the basic questions, and outlines the methods of inquiry and the techniques of investigation that will best help him guide the required change of behavior in his students. According to Michaelis, Grossman, and Scott, "if there is one common element in the many new curriculum developments across the board, it is the emphasis on the involvement of students in inquiry." (4:409)

To successfully implement the new curriculum, every teacher must examine the most up-to-date materials and ideas and adapt them to the peculiar needs of his particular students. While the community must understand and support curriculum change, while adequate facilities must be available in the school, while appropriate materials must be at hand, and while trained personnel must be available to offer their services in in-service programs, it is above all else the classroom teacher who is the key to successful implementation of the new curriculum, for in the end the curriculum is what the teacher makes of it.

The new curriculum of the nongraded school must be flexible enough to accommodate the great range of student abilities and achievements. It is the basic needs of students which are of prime concern in the nongraded school. Only when all students are in programs that are challenging and consistent with their abilities can these curriculum programs be regarded as appropriate. The flexibility of the curriculum enables the teacher to challenge the bright, the average, and the dull. The availability of a vast array of reasonably-priced paperbacks as supplementary material supports this flexibility.

What is the proper role of the teacher in implementing the new curriculum? According to B. Frank Brown, it is leading discussions, giving instructions, counseling students with special problems, and encouraging students to engage in independent inquiry into problems. (1:13-18) The emphasis on coverage of specific facts is replaced by a study of the basic concepts or themes which hold a subject together. Instead of memorizing the notes of the lecturer, the student in the nongraded school should be actively involved in discovering answers for himself through careful investigation of major themes, basic issues, and problems.

The subject matter in the new curriculum no longer comes in neat ten-month packages but rather the time element in which a student studies any particular discipline varies greatly in length. It depends primarily on the ability of the student to move through the material. The material is organized sequentially into units. The basic ideas of one unit will confront the student again and again in what is known as the spiral curriculum. This broadening and deepening of knowledge is the heart of the sequential curriculum.

B. Frank Brown makes the following suggestions regarding time utilization.

> At least 20 percent of the school day should involve presentation of-materials while 40 percent should be devoted to discussion by small groups of children. The remaining 40percent should be spent on individual work and outside reading. As has already been stated, the new curriculum serves the needs of each individual student in a process known as 'phased' learning. A phase may be defined as a flexible learning situation which is related directly to the achievement of the student rather than to the grade to which he has been promoted. (1:26)

Above all else, the new curriculum in the nongraded structure is designed to meet the needs of each child from the time he enters school, at every level of his learning, and in every learning situation. Throughout the entire schooling of the child, the nongraded curriculum allows for him to develop in his own unique way at different rates in different subject areas rather than in a step-by-step preconceived, graded pattern. It is designed for the betterment of all, including the slow learner, the reluctant learner, and the potential drop-out.

The nongraded curriculum puts more emphasis on longitudinal rather than horizontal structuring in the school system. By this is meant that what should be taught and to whom it should be taught are seen over a span of years. No longer is it important to know whether a particular student is on a certain book or is being taught a certain fact about science in a certain grade. What is really important is what concepts, such as the interdependence of man, what skills, such as locating information and using reference materials, and what values, such as tolerance and respect for every human being, are being learned and how well. In the words of Goodlad and Anderson, "the timing and pacing of learning processes become more important than the grade placement of specific learning tasks." (3:85)

All teachers are faced with the problem of helping each child relate what he has learned. This relating of one learning experience to another is much better accomplished when the student develops basic skills, when he understands basic concepts, and when he appreciates basic values in a longitudinal pattern of learning.

Michaelis, Grossman and Scott elaborate some very worthwhile guidelines for the teacher to follow in utilizing the new curriculum. The teacher firstly must plan and use strategies that are consistent with the modes of inquiry of the particular discipline. Secondly, he must help students become better able to select those techniques of inquiry that are most useful in different situations. Thirdly, he must ask those questions which go beyond Bloom's first classification of knowledge to achieving the higher educational objectives. And finally, he must always focus attention on the main ideas around which a subject is organized, on the main skills that are essential in mastering the methods of inquiry, and on the main values that the students will one day cherish. (4:264-266) Effective utilization of these guidelines would enable a teacher to implement a truly sequential curriculum.

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10

Language

The most fundamental subject in the nongraded elementary school is language arts. Before the child can cope with the content of any other discipline, he must first master the basic reading skills. The type of reading program required in the nongraded school has been described as follows:

> The nongraded school calls for a reading plan based on the notion of continuous program. In such a plan the pupil moves forward only as rapidly as his ability allows. His assignment to the group is the result of the teacher's identification of his true instructional level, the level at which the child is able to read with enough ease to provide enjoyment, but difficult enough so that elements can be pulled out for instructional purposes. (2:67)

The important issues in organizing the language arts curriculum are the methods of grouping for instructional purposes and the appropriate selection of materials. The levels programme used in most language arts courses takes into consideration the continuous growth of the child and his various rates of learning. The use of certain diagnostic tools reveals the level at which the child should be placed. Some children, for example, do not need reading readiness when they come to school whereas others do. When we know where the child is, provision can be made to lead him on to higher levels of learning. Grouping according to reading ability alone is undesirable. Ideally, these factors should be taken into consideration in addition to reading ability: chronological age, achievement test results, I. Q. test results, social maturity, interests, needs, and physical set. The important feature of the levels programme is that there is no time limit set for completion. No child is forced to learn in a race against time. He need not move on to higher levels of work until he has fully grasped the fundamentals of the unit on which he is working.

The benefits to be derived from a level's program in reading are obvious. There is a reduction in pressure on the child because he can move at a pace in accord with his abilities. Because anxiety is lessened, learning is easier. The child may be progressing at a faster rate in other subject areas, so this levels programme in reading will not hold him back. The fear of failure is removed because the child just picks up where he left off. A continuous forward step from the level reached to the next higher level is a key feature of this program.

The following is a summary description of the Reading Programme in the Halifax School District. Levels one and two are the readiness levels. The child's interest in reading is to be fostered during this period. This is the task of the creative teacher. Children are given the opportunity to develop an adequate attention span by having the teacher read to them. They also develop a speaking vocabulary with which to express their ideas.

Word recognition at this level would include the ability to imitate sounds, rhyme words, recognize colors, make auditory discriminations, whisper, tap, and whistle. The comprehension skills to be expected of a child at this level are the capacity to listen to stories, to participate in chart stories, to arrange stories in picture form, and to remember the main characters and events in the stories. Before completion of this level, the child is expected to master the manipulative skills of handling a book without damaging it and replacing it on the shelf in its proper place.

Levels three and four are the pre-primer levels where the child is initiated into the experience of reading from an actual book. The pre-primers are books which present printed words in a story. Repetition is essential at this level to fix vocabulary recognition. At this time the skillful teacher will be on the alert to detect any impediments to sight, hearing, or speech.

Word recognition skills are somewhat more complex at this stage. They include the ability to distinguish differences in word form, the ability to recognize words from picture clues, and the ability to name letters of the alphabet in relation to the sound of symbols.

Comprehension skills are correspondingly of a higher order. Finding the main idea, following oral directions and small printed directions, and recalling what has been read aloud are but some of the comprehension skills to be developed at the pre-primer level. Added to the list of abilities in handling books are the ability to recognize the author and title of the story.

A cursory glance at levels five, six, seven, eight, nine, and ten will show clearly that the objective is to increase independence in reading. The following will serve as an overview for the span of levels five to ten. Throughout these levels phonetic and structural analysis skills combine in helping the child unlock sound or pronounciation units. During these levels audio-visual discrimination of most of the initial consonants and the short vowel is to be mastered by the child.

By the time the child reaches levels eleven and twelve, there should be evidence of an ever greater independence in reading. There should be less supervision by the teacher and a broader scope of reading materials provided. It is at this time that the teacher intensifies understanding of the concept that reading is a thought getting process. Comprehension, interpretive assessment of reading material, and the seeking of information are all central in teaching and learning at this level.

Levels thirteen and fourteen have two important purposes. It is a level of sustaining, in a horizontal way, the developments of the levels already completed. It also serves as a progressive vertical programme during which some new skills are acquired, some previous skills are bolstered, and some traditional activities of reading prepare the child for a higher level of reading difficulty. One basic idea which receives increasing stress during the level is that of using well the interpretive skills of readiness so that a sustained concept that reading is a thought-getting process is established for the child.

The potential of the reading program as a focus for the language arts program has been described as follows:

> The reading program, seen as a generous blend of increasingly sophisticated reading skills and sound and enticing literature, has awesome potential as a focus for the language arts programme. Manuals for "readers" make haste to capitalize on this potential. Activities abound involving written composition, creative and conventional drama, speech work, and even in an oblique way, spelling and the study of language. Few fields have been blessed with the pedagogical ingenuity that has been put into published reading programs, and the justification for building a language arts program with this focus are considerable. (4:69)

All other aspects of the language arts curriculum can be tied in a cohesive way to the reading program. The Elmwood school, a school organized around the concept of nongradedness, has combined spelling with reading because it believes:

> that a child can best learn to spell a word if he has met it in reading, and secondly, because once these high frequency words are identified both in writing and in reading, the child needs to learn to spell them as soon as possible. (3:35)

The teachers themselves tailored the spelling programs to suit each child. This they accomplished by joining the word lists to the reading units which would vary for different children. The better a child is in reading, the more words he would be required to master in spelling.

The common need in all aspects of the language arts—reading, spelling, written composition, oral expression, and the rest, is for something that is worthwhile to listen to, to tell someone else, to write about, or to read. The central element is the thought element. Specifically, the steps involved in teaching reading as a thinking process have been outlined as follows:

I. Identifying Purposes for Reading
  A. Examining clues available in the
    1. Title and subtitles
    2. Pictures, maps, graphs, and charts
    3. Material. adjusting to information as it is read, and to readability
  B. Declaring purposes in terms of the
    1. Reader's background of experience, intellect, language facility, interests, and needs
    2. Experience, abilities, interests, and needs of the group
    3. Content of the material: concepts of time, place, people, number, science, aesthetics, and humor

II. Guiding the Adjustment of Rate to Purposes and Material
  A. Skimming: to read swiftly and lightly
  B. Scanning: to read carefully from point to point
  C. Studying: to read and reread so as to pass judgement

III. Observing the Reading
  A. Noting abilities to adjust rate to purpose and material
  B. Recognizing comprehension needs and providing help by clarifying
    1. Purposes
    2. Concepts
    3. Need for rereading (silent or oral)
  C. Acknowledging requests for help with word-recognition needs by providing immediate help in the use of
    1. Context clues: meaning clues
    2. Phonetic clues: sound clues
    3. Structural clues: sight clues
    4. Glossary clues: meaning, sound, and sight clues

IV. Developing Comprehension
    A. Checking on individual and group purposes
    B. Staying with or redefining purposes
    C. Recognizing the need for other source material
    D. Developing concepts

V. Fundamental Skill-Training Activities: Discussion, Further Reading, Additional Study, Writing
    A. Increasing powers of observation (directed attention)
    B. Increasing powers of reflection by
        1. Abstraction: reorganizing old ideas, conceiving new ideas, distinguishing between ideas, generalizing about ideas, and making inductions and analysis
        2. Judgement: formulating propositions and asserting them
        3. Reasoning: inferring and demonstrating, and systematizing knowledge inductively
    C. Mastering the skills of word recognition: Picture and language context analysis, phonetic and structural analysis, and dictionary usage
    D. Developing adeptness in the use of semantic analysis: levels of abstraction, shifts of meaning, referential and emotive language, definite and indefinite terms, and concept development. (5:20-21)

Many of these objectives can also be achieved through the written aspects of the language arts program. A major problem to be overcome in language arts is the lack of coherence in some of the existing programs. One author writes:

> We note that the language arts in the elementary school program separate something called reading from something called spelling which is something mysteriously separated from (and often more dominant than) its neglected parent, composition. One dare not refer to the latter as writing because that is to confuse it with handwriting which is another majic block nestled between a curio called phonics and something even more mysteriously called English. (4:66).

On account of the prevalence of such notions, one can hardly call language arts a unified program. Much has to be done to resolve the question of how to restore unity and coherence to the language arts.

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11

Mathematics

The modern elementary school mathematics curriculum emphasizes the relationships among mathematical ideas and promotes the continuous development of mathematical thinking. In the past, computational skills and applicability were the objectives of the mathematics courses taught in our elementary schools. Today there is a change in both content and approach. We look to the structure of the subject, its concepts, relationships, and principles, to determine the content; we look to the mathematician for his method of inquiry to determine the approach.

In considering when the child should be introduced to various concepts and processes in mathematics, it is important to realize that intellectual and experiental factors are much more significant than physical development. It is the child's mental age combined with his experience that determines his present state of readiness. But the amount of experience the child needs at each stage in his development varies from one individual to another. Although much is known about experiental readiness, it is very difficult to measure. It is partly due to its importance that we stress a good deal of classroom activity. Because of the significance of experiental readiness in mathematics, we should proceed from the concrete to the abstract; because of the significance of intellectual readiness, we should proceed in a logical sequence. Therefore, in mathematics, there is no general readiness but only a readiness related to specific tasks. Stages of introduction are suggested for the development of concepts and processes based on the idea that learning progresses most when learning experiences proceed both in a logical sequence and from the concrete to the more abstract.

When considering intellectual readiness, it is of utmost importance that the structure of mathematics, its concepts, relationships, principles, and different modes of mathematical reasoning, be clearly seen and understood by the student. To achieve this understanding, an elementary school mathematics program should have these three major objectives:

a.) a thorough understanding of the structure and patterns of mathematics.

b.) facility with computational skills.

c.) an ability to apply logical reasoning in abstract situations.

In the past, many students did not enjoy mathematics because less-than-exciting methods were utilized to teach it. Methods that foster creativity and discovery on the part of the student are essential. Student activity should consist of guided discovery that will cultivate curiosity. Techniques used should facilitate generalizations and the discovery of patterns.

Mathematics Curriculum For the Nongraded Elementary School

The following is a proposed outline of a sequential elementary mathematics curriculum which embodies the basic concepts, relationships, and principles of modern mathematics.

"Level One"

1. Points and lines.
2. Recognition of simple shapes.
   (a) squares
   (b) circles
   (c) rectangles
3. Comparison of sizes.
4. Patterns.
5. One-to-One matching.
6. Counting sequences.
7. Numeral recognition.
8. Order of numbers (through 10).
9. Idea of set.
10. Comparison of sets.
11. Simple oral problems.

"Level Two"

1. Equivalent and non-equivalent sets.
2. One-to-one correspondence.
3. Union of sets.
4. Subsets.
5. Comparison.
6. Intersection.

11. **Numbers and Numerals:**
   1. Understand numbers (0 through 100).
   2. Counting by ones, tens, fives, and twos.
   3. Abstracting cardinal numbers from equivalent sets.

III. **Place Value:**
   1. Grouping by tens.

IV. **Number Facts:**
   1. Additional and subtraction (through 10).

V. **Order and Relations:**
  1. Comparing numbers.
  2. Symbols (<, >, =).
  3. Equations and inequations.
  4. Ordinal numbers (1st. through 10th.).

VI. **Basic Principles:**
  1. Addition principles.
  a. commutative property.
  b. associative property.
  c. zero and one.
  2. Principles of subtraction.
  a. subtracting a number from itself.
  b. subtracting zero.
  c. set operation.
  3. Inverse relation between addition and subtraction.

VII. **Fractional Numbers and Fractions**
  1. Parts of a whole.
  2. Simple fractions.
  3. Equivalent subsets.

VIII. **Measurement:**
  1. Money.
  2. Time.
  3. Simple length and volume measurement.
  4. Story problems.

"Level Three"

1. **Sets:**
  1. Maintenance (extension of previous principles).
  2. Partitioning of sets.
  3. Product sets.

II. **Numbers and Numerals:**
  1. Understanding of number-numeral distinction.
  2. Numbers through 999.
  3. Different numerals for a number.

III. **Place Value:**
  1. Three and four digit numbers.
    a. Grouping by 10's, 100's, 1,000's.

IV. **Number Facts:**
  1. Addition through 18.
  2. Subtraction through 18.
  3. Multiplication facts.

4. Division of whole numbers.

V. **Basic Principles:**
   1. Maintenance.
   2. Multiplication: Commutative, zero, one.
      a. repeated—addition interpretation.
   3. Division.
      a. by one.
      b. of a number by itself.
      c. by zero not possible.
      d. repeated—subtraction interpretation.

VI. **Fractional Numbers and Fractions:**
   1. Extension of fraction concepts.
   2. Numerals for fractional numbers.

VII. **Measurement:**
   1. Money.
   2. Time.
   3. Linear.
   4. Liquid.
   5. Story problems.

"Level Four"

1. **Sets:**
   1. Maintenance.
   2. Product sets.
   3. Intersection of sets.

II. **Numbers and Numerals:**
   1. Maintenance.
   2. Understanding of numbers through millions.
   3. Reading and writing numerals through 9, 999, 999.

III. **Place Value:**
   1. Thousands and millions.
      a. One through seven digit numbers.

IV. **Order and Relations:**
   1. Comparing numbers.
   2. Division through 81.
   3. Addition with carrying.
   4. Subtraction with borrowing.

VI. **Basic Principles:**
   1. Maintenance.
   2. Distributive property.

VII. **Fractional Numbers and Fractions:**

   1. Maintenance.
   2. Introduction to equivalent fractions.
   3. Order in set of fractional numbers.
   4. Informal approach to addition of fractional numbers.

VIII. **Measurement:**

   1. Maintenance.
   2. Area and volume.
   3. Maps and Charts.

IX. **Problem Solving:**

   1. Scientific problems.
   2. Inequality problems.

X. **Geometry:**

   1. Intuitive experience.
      a. circles.
      b. angles.
      c. triangles.
      d. quadrilateral.

"Level Five"

1. **Sets:**

   1. Maintenance and extension.
   2. Union. (U)
   3. Intersection. (N)
   4. Sets of points.
   5. Disjoint and non-disjoint.
   6. Universal set.
   7. Complement.

II. **Processes:**

   1. Maintenance of addition and subtraction.
   2. Extension of multiplication and division.
   3. Intuititive operations with functions.

III. **Estimation:**

   1. Rounding numbers.
   2. Estimating answers to problems.
   3. Using inequalities in measurements.

IV. **Equations and Inequalities:**

   1. Equations with fractions.
   2. Letters as place holders.
   3. True and false statements.
   4. Solutions of equations and inequations.

V. **Fractional Numbers:**
  1. Comparison of fractional numbers.
  2. Relation of fractional numbers to whole numbers.
  3. Mixed fractions.

VI. **Graphs:**
  1. Tables.
  2. Bar graphs.
  3. Pictographs.

VII. **Measurement:**
  1. Maintenance.
  2. Perimeters and surface area.
  3. Weight.
  4. Applications.

VIII. **Geometry:**
  1. Maintenance.
  2. Parallel lines.
  3. Space geometry.

IX. **Numerations:**
  1. Place value through billions.
  2. Base 5 numerals.

"Level Six"

1. **Sets:**
  1. Maintenance and extension.
  2. Sets of equivalent fractions.
  3. Solution sets.
  4. Sets of ordered pairs.

II. **Processes:**
  1. Maintenance.
  2. Operations (fraction notation).
  3. Introduction for rational numbers.

III. **Estimation:**
  1. In word problems.
  2. In fraction algorithms.
  3. Using inequalities.
  4. In measurement.

IV. **Equations and Inequalities:**
  1. Maintenance.
  2. Variables.
  3. Solution sets.
  4. Graphing on a number line.
  5. Relations for rational numbers.

V. **Place Value and Sequences:**
  1. Exponential notation.
  2. Bases of numeration other than 10.
  3. Decimal notation.
  4. Discovery type sequences.
  5. Rational number sequences.

VI. **Notation:**
  1. Variables (a - z).
  2. Exponents.
                  0
  3. New symbols (., , f (n)).
  4. Rational number line.

VII. **Ratio and Propertion:**
  1. Formal introduction.
  2. In word problems.

VIII. **Graphs:**
  1. Maps, charts.
  2. Bar and circle graphs.
  3. Coordinate axes.

IX. **Geometry:**
  1. More formal attention to abstract concepts.
  2. Definitions, plane, and space.
  3. Extension of concepts.

X. **Problem Solving:**
  1. General interest problems.
  2. Multiple operations.
  3. Averages.

"Level Seven"

1. **Sets:**
  1. Maintenance and extension.
  2. Uenn diagrams.
  3. Solution sets.
  4. Sets of ordered pairs.

II. **Processes:**
  1. Maintenance.
  2. Operations (fraction notation).
  3. Operations (decimal notation).

III. **Estimation:**
  1. In word problems.
  2. In decimal algerithms.
  3. Using inequalities.

   4. In measurement.

IV. **Equations and Inequalities:**
   1. Maintenance.
   2. Variables (letters).
   3. Solution sets.
   4. Graphing in a plane.
   5. Relations for rational numbers.
   6. Estimation.

V. **Place Value and Sequences:**
   1. Maintenance and extension.
   2. Scientific notation.
   3. Discovery type sequence.
   4. Rational number sequences.
   5. Repeating decimal sequences.

VI. **Notation:**
   1. New symbols (√—, %, u, n, (- a)).
   2. Scientific notation.
   3. Co-ordinate axes.

VII. **Ratio and Propertion:**
   1. Maintenance and extension.
   2. Ratio and per cent.
   3. In indirect measurement.

VIII. **Graphs:**
   1. Maintenance.
   2. Co-ordinate axes.
   3. Graphs of functions.

IX. **Measurement:**
   1. Maintenance and extension.
   2. Indirect measurement using ratios.

X. **Geometry:**
   1. More formal attention to abstract concepts.
   2. Definitions; plane and space.
   3. Extension of concepts.

XI. **Problem Solving:**
   1. Maintenance.
   2. Multiple operations.
   3. Averages.

XII. **Special Topics:**
   1. Functions.
   2. Negative numbers.
   3. Other systems of numeration.

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12 Social Studies

In order to deal effectively with the topic of social studies curriculum in the nongraded school, an attempt will be made to present certain guidelines for developing and implementing a curriculum which will embody and hopefully achieve the major goals inherent in this significantly new and fresh approach to education. To achieve this purpose there will first be set down some general objectives deemed worthy and attainable in a sequential social studies curriculum. Following this will come some basic principles to be followed when organizing a nongraded curriculum for the social studies. Finally, major attention will be given to ideas and suggestions designed to shed some light on the manner by which the general objectives and principles may be implemented in the various subjects that comprise the social studies. A major portion of the third section of this chapter will focus specifically on history because of the emphasis put upon this subject in Canadian high schools. However, reference will also be made to the other social sciences disciplines.

In examining the social studies curriculum, the first question to be asked by social studies teachers is "What is to be taught?" or in other words, "What should be the general objectives of the social studies curriculum in the nongraded system?" The answer to such a question must contain the following three components: basic concepts, skills, and values which will bring about a change of behavior in every student in every branch of the social studies. There is very definite recognition in these three categories of objectives that students differ in academic ability, work habits, reading ability, interests, and experience—all of which affect a change in the understanding of concepts and the acquisition of skills and attitudes. Hence, in order for social studies teachers to successfully create a teaching-learning experience, they must get to know each student in their social studies classes for the purpose of assessing the latter's strengths and weaknesses and determining the basic concepts, values, and skills that will be most beneficial to him. This concern for the individual person and the recognition of the fact that each student should be met where he is and led to higher levels of accomplishment in the areas where he is deficient is, in our opinion, the basic characteristic of the concept of non-grading or continuous progress.

Once a social studies teacher has set worthy and attainable objectives, the next major problem is to organize the curriculum. One very basic principle that applies to the various branches of the social studies is that of correlation and integration. Mark Krug describes the relationship between history, the "core of the social studies", and the other social sciences, namely economics, political science, sociology, anthropology, and social psychology in the following manner: (8:78) History belongs to the social sciences but also to the humanities for the basic reason that, while historical inquiry is based on a scientific approach and method, the final conclusions are intuitive and individual. While history is mainly interested in the uniqueness of cultures and civilizations, the social sciences prefer to search for elements and processes that are common to all cultures and civilizations. Unlike some of the social sciences, history is very concerned with values, attitudes, and motives. However, Krug emphasizes that the differences between history and the other social sciences, should not be exaggerated because of the new trends in the social sciences today. (8:47-54) The gap between social studies and the social sciences and history is, in fact, narrowing. Social scientists are gradually recognizing that their own disciplines are not purely scientific. Historians are realizing that they need and value the use of social science concepts and methods of inquiry in their work. By pooling their resources, the historian, the political scientist, the economist, the anthropologist, and the sociologist can gain a better understanding of man's nature and his behavior in the past.

Commenting on this growing rapport among the disciplines, Krug asserts that the work of the social studies teacher will be significantly influenced. He will have to deal with an increasing number of controversial issues and insist on high standards of inquiry into the basic issues and problems of past and present. He feels that when the teacher is able to become known for his scholarship and his high standards of inquiry, he should not hesitate to give his own views about such an inquiry, views that will be respected. (8:71-134)

The new social studies curriculum is based on the assumption that each of the social sciences has a method of inquiry which can be taught to and used by high school students in social studies classes. Social studies teachers must try to acquaint their students with some of the basic ideas and insights taken from the vast amount of scientific research currently available and equip them with at least one type of inquiry method for studying a basic social issue or problem. Social studies teachers should not be expected to combine all the different concepts, insights, findings, and methods of inquiry of each subject comprising the social studies curriculum. Rather, with the needs of the students and the recognized objectives of the social studies curriculum in mind, they should select insights from the various social sciences. (8:78)

Krug thinks that if history is to become the core of the social studies curriculum, it must not be strictly political, economic, or cultural. It must be broadly conceived, and cognizance must be taken of its limitations in methods and modes of inquiry. History has been concerned with the what and the why of the story of the past. By using social science concepts and methods, the historian concludes that it will be possible to answer the what and the why more successfully by looking at the past from different angles. (8:79) One proper approach to inquiry in the social studies is to make history the core of the social studies curriculum, while at the same time drawing upon the insights, ideas, and modes of inquiry of the other social sciences.

A principle that must be given key consideration in organizing the content of the social studies curriculum, particularly in the elementary school, is that of expanding environment. Because students understand most easily what is near them, the emphasis is on the home, school, and community in the early grades, and gradually there is a move to other communities which cannot be dealt with directly. Every subject of the social studies curriculum should, therefore, stress reaching beyond the confines of a single text to an examination of the real life situation in which each individual student finds himself. Here again recognition is given to the principle of individual development.

Every branch of the social studies curriculum must be organized to achieve meaningful goals set by the teacher. The best way to organize a course, according to Edwin Carr, is in the form of a unit provided that it has a central theme, is based on the needs of the learner rather than the demands of his subject, is selected to change the learner's behavior, and is varied in length, depending on the topic and the purpose. For example, chronological units in history contribute to the student's sense of time and enables him to see how political, social, and economic matters are related. There is a danger that history will be sliced up and have no sequence if it is organized into chronological units alone. Thus, chronological units should be combined with topical units. Units, such as nationalism or the industrial revolution, can be treated from their origin to the present in a meaningful sequence. Units can also be organized around problems. Such problems as economic unemployment, regional disparity, violence, and rioting take into account the personal and social interests and needs of the pupils. Too often social studies teachers have organized their courses by dividing the number of pages in a text by the number of teaching days to determine how many pages must be covered each day. Teachers forget that their goal is not to cover the text but to bring about some specific change in the student's behavior. Social studies courses are often arranged only chronologically so as to facilitate memorization. What the social studies curriculum in the nongraded school proposes on this matter of organizing content in units is a combination of chronological, topical, and problem units which will serve the best interests and needs of each individual student as he is developing into a future citizen.

Another significant principle should be dealt with before going into a closer examination of individual subjects in the social studies curriculum. It is the fundamental notion that the content of curriculum should be organized in cycles so that the student meets the same basic concepts and practices and the same basic skills on more sophisticated levels. Jerome Bruner declares that "a curriculum ought to be built around the great issues, principles, and values that a society deems worthy of continual concern to its members." (2:52) Such basic concepts as the interdependence of man, the influence of location on the development of a community, and the role of citizens in preserving a democracy, and such basic skills as map reading, locating information, and outlining and summarizing should in a continuous progress program be presented again and again to the students in progressively more complex forms so that they will continually develop and deepen their understanding and skill development.

The next part of this paper will be devoted to an investigation of the new developments in curriculum planning and instruction in the subject area of history. This aspect shall be dealt with by first examining how history has been viewed and, as a result, taught to children in our educational system to date. Following this will be an attempt to give a clear and concise description of the new development receiving the popular terminology of "new history", along with major emphasis on the manner of implementing such a development. It is the intention of the authors that this work will thoroughly reflect the belief that such a new development as is described will undoubtedly result in a significant improvement over the traditional practices in this vitally important field of study.

It is a well recognized fact that the traditional school subject of history is steadily losing any degree of popularity that it may have possessed. It is also not incomprehensible why such a state of affairs should exist. While one has to admit that there have been and still are "good" teachers of this subject, one also cannot deny that this is unfortunately the exception rather than the rule. Their main objective too often has been to get each and every student to memorize an enormous quantity of facts from a single textbook which has received a veneration comparable to that received by the Bible. Emphasis on the correct answer and absolute consensus of opinion has resulted in a complete disregard for individual differences. Many teachers have made no systematic effort to develop the very basic and all important skills of reading, writing, and listening. Little concern or, at least, effort has been shown for developing in the student the abilities for tackling new words, taking notes, and classifying information, all of which are the fundamental tools of anyone who wishes to walk in the footsteps of the historian. There has been a general lack of purpose in the area of homework assignments. History has received the unenviable description of a boring subject for several legitimate reasons. The manner of presentation has left much to be desired. The lack of enthusiasm by many history teachers has consequently led to a similar lack of interest and respect on the part of the pupils. Strict verbal adherence to the text has stunted or extinguished any natural curiosity, and therefore, any enjoyment which could be so prevalent. In short, history has become little more than a prolonged headache for both teacher and student.

What exactly is involved in the new history? Richard Brown at the 25th Annual Convention of the National School Board Associa-of the United States in April, 1965, commented that the new history is not so much a knowledge of facts that are readily available in a textbook as a sense of what the facts are. In the new history the student should be able to assume a capacity to doubt, ask questions, and criticize much more than the capacity to memorize. According to A. J. E. Lello and John Grant Wood, the new history enables one not only to know what has happened in the past but also to develop a capacity for interpreting and judging human motives, along with an understanding of the historian's art or technique. It is a recognition that one studies history to understand how people and circumstances have interacted in the past, to judge more accurately how they are operating in the present, and finally, to understand how the historian recreates the past for us. (10:106)

The teacher in the new history must go beyond giving the student the factual narrative of answers found in the textbook to presenting to the student a vast array of historical evidence about which the student can ask questions and from which he can attempt to draw his own conclusions. This discovery or "figuring out" method emphasizes giving to the students not the conclusions of the scholars but the raw materials with which the scholars work. The student should formulate questions and work his way to his own conclusions. Such an approach has been used by some good teachers in the past, but its implications for teaching history have never been adequately explored. The great advantage of this new approach is that it is a much more effective method of reaching students of varying abilities than the very limited method of memorization. As J. F. Swayze notes, the student becomes convinced that history is not a body of absolute facts, but that events of the past are recorded by historians who are capable of different interpretations and are able to change their views as new evidence is found. (14:329) Many students who previously would have failed because they were not capable of memorizing a textbook are given a chance through the new history to be creative. No longer should historical facts be treated as unique and isolated; they should be analyzed and related so as to insure true understanding of the historian and his discipline.

In the new social studies curriculum the important thing for the student is not that he memorize supposed truths from a textbook but that he grapple with the truth. It makes so much more sense to educate a student to be a careful inquirer rather than to fill him full of facts. In support of such a stand is Edwin Fenton who visions history as a method of reading and writing about past events. In this capacity it cannot be an accurate record of every event but rather of those events which are deemed significant by a particular historian at a particular time. Because selection implies interpretations, methods of interpretation must be taught if history itself is to be properly taught. Teaching the mode of inquiry of history lies at the heart of the new history. (5:152) Students must be taught to think like historians. They should be able to judge whether or not an author's conclusions are supported by evidence; they should be able to draw their own conclusions and to present the evidence on which these conclusions are based.

To make such results possible, a number of changes are needed in the history program. The teacher should be able to prepare his own materials and build his own course. History courses should vary from place to place, from teacher to teacher, and ideally from student to student. In the opinion of Richard Brown, the new history is completely unique in that the students should be able to start anywhere and move backward and forward in time as inquiry leads them. (1:445) The emphasis should not be on history as mainly a chronological narrative, as has been the case, but as a relationship put down in time, such as cause and effect. Only in the new history is it being recognized that the way to understand chronology is not necessarily to deal with subject matter in chronological fashion but rather in a manner that makes clear the importance of the fact that one event happened before or after another.

Assuming it is of fundamental importance that the student be taught to think in a fashion modelled upon that of the historian, it logically follows that the next step would be to teach the students the means to accomplish this end. From the very beginning of the school year history teachers should present reading materials to the students which will encourage them to think about the ways in which the historian works. Students should be given opportunities to increase their knowledge about historical procedures and to apply historical techniques to many situations. Only by applying certain tools of analysis will students be able to gain proficiency in the long run in this area. The first of these tools is the technique of classifying information. Just as the historian collects and arranges information, so too, students should get practice in gathering informations, especially from newspapers and journals, on problems which they have decided to investigate. Secondly, techniques of critical thinking and independent inquiry into data for problem solving should be taught by the teacher at the outset of the school year. Students should be given the opportunity to read widely divergent newspaper accounts and the views of different authors so as to cultivate an historic mindedness and a perspective which can prove invaluable for students as they attempt to cope with past and contemporary problems. Teachers are faced with the necessity of focusing attention on contemporary, controversial issues in order to prepare students for an increasingly complex society that is beset with problems. As Mark Krug clearly points out, the introduction of the new history has been accompanied by the realization that the previous morally neutral type of history has not instilled into students an attitude of personal responsibility for the improvement of the society to which they belong. (8:76)

In order to cultivate the ability to think critically, the history curriculum would have to be designed so as to give students an opportunity to identify main issues, prove hypotheses, distinguish between fact and opinion, ask analytical questions, and draw their own conclusions. Bernice Goldmark presents an illustration of how such objectives might be realized in a classroom. She describes how a grade six history teacher motivated his class to critically examine two different points of view on Soviet foreign policy. A very important outcome of this teacher's approach was the recognition by the students that alternative views could exist. The teacher posed questions, such as: Who is the author?; Why did he write this?; Do you believe him?; Can you prove he is wrong?; Would you accept or reject him?; Would you hold a different point of view if you were a Russian farmer or a Chinese peasant?. The teacher concluded the lesson by asking: What did we do?; How did we do it?; Why did we spend so much time on these two articles?; Does this have any value for you?. In conclusion, this example points out the need for the teacher to use his own method to achieve the goals of critical thinking and problem-solving, to maintain direction in a free and open discussion, and to recognize the fact that unanimous decision on the solution to a problem would not be necessary unless an action based on that decision was required.

At this point it is worth noting the views of Gerald Leinwand who declares that there is a danger that the history teacher will completely scrap all former teaching methods and aims in favour of critical inquiry. (9:412) To have the students discover what the historian has already discovered, such as the causes of a revolution or the theories of a national government, is artificial and wasteful of time. Promoting discovery alone as a method is deceptive and vain because it is incomplete. The child cannot form generalizations without making a systematic survey of secondary sources. He must have a clear understanding of the sequence and relation of events. If critical thinking is attempted by drawing conclusions solely from primary source material without any background information, then the learning experience of the student will be incomplete. Students should use primary source material only after a basic understanding of a problem to be solved has been reached.

The social studies curriculum in the nongraded system recognizes the need to develop some very basic skills in the students before expecting them to handle social studies material. These basic skills include attacking new words, composing and learning definitions, taking notes, outlining and summarizing material, reading to select main ideas of a selection, and listening for the same purpose. To what extent in the past has there been a recognition of the need to develop such skills as part of the curriculum? It is unfortunate to admit that such recognition has either been lacking or, if it has occurred, it has not been followed up by corrective therapy. Logically therefore, there must follow the admission that the needs of a large percentage of our school population have not been met. How can such a serious situation be improved? Edwin Carr declares that not one of the skills mentioned above can be taken for granted. Specific instruction must be provided at every level of the school program for the orderly development of these skills. (3:81) John R. O'Connor reiterates these significant ideas when he declares that teachers of the social studies must know the reading skills which a child possesses and those which he ought to possess. They must also be aware that such skills are of fundamental importance for any degree of success by their students. (12:104) Perhaps the greatest task of the social studies teachers in attempting to improve the basic skills of the students is to prove to each and every student that he can indeed learn. The student can be successful as the instruction in skills becomes basic, specific, and continual.

A very important branch of the social studies curriculum is civics. It generally includes a study of the constitution, the structure of government on the federal, provincial and local levels, and citizenship education. Mark Krug makes the important point that, while many civics and government textbooks are well written, a significant number only contain a body of conclusions, some correct, partly correct, or the opinions of the author. (8:200-201) These often ignore some of the most important problems of our time. Hence, civics has become dull and uninteresting. There are closed areas of discussion, such as race and minority relations, social class, religion, and morality which some people believe should be left until after the child finishes school. The need to submit controversial issues to a searching, intelligent analysis in the classroom is imperative. If students are to gain new understanding and insight, if they are gradually to adopt the intelligent responsible attitudes required of good citizens, their present knowledge, beliefs, and prejudices have to undergo critical rethinking. Only in this way will effective and interesting learning take place which, in turn, will prepare students for intelligent decision making in society.

Along with many new ideas in planning the history curriculhm have come similar, novel suggestions for the revision of the geography curriculum. Geographers, too, are aware of the unpopularity of their courses in the past and have suggested that a new geography be taught in the schools. The basic skills would consist of the development of a sense of space and time, distances and relationships; the ability to observe and analyze natural phenomena and photographs in order to identify physical and cultural characteristics of a region; the ability to identify patterns of inter-relationships among real spatial phenomena in order to form valid generalizations; and, finally, the ability to understand the particular personality of a place and to appreciate its uniqueness in relation to other places. (8:254) It is indeed necessary to realize the importance of these objectives because previously geography, like history, was not regarded highly by students and teachers. History teachers who emphasize the cause and effect relationship ought to realize the importance of how things are related or located in relation to one another at the same time. The connection between history and geography becomes an even closer one in the new social studies curriculum by the current tendency of history to use concepts and approaches of the behavioural sciences to consider more than just the political aspects of past human experience. The connection will be reinforced even further, Krug concludes, by the tendency of the new geography to look for patterns of association among the physical, historical, economic, political, and biological characteristics that are present in the different geographical areas of the world. (8:260)

The nongraded social studies curriculum puts stress on the need for a mankind perspective in the teaching of world history.

Commenting on this need, Shirley Engle had this to say:

> Through the study of world history the student ought to see the broad lines of continuity and change in human society, the significances of uniformity and variety among human institutions, the persistent problems faced by all human societies, and the resources needed for improvements in human affairs. (4:459)

There is an important need for a basic change in understanding on the part of social studies teachers as to what exactly world history is. World history in the social studies curriculum puts great emphasis on the important realization that some of man's most crucial problems are only able to be solved on a global scale. Such an approach certainly does not eliminate or diminish the importance of the history of individual nations but rather contributes to the growing need of all students to look at selected periods in world history from a global point of view.

Economics is a subject that brings social studies into sharp focus. In order for children to one day become responsible citizens they must come to understand such basic economic concepts as scarcity, division of labor, social interdependence, market, supply and demand, and economic goals. Many tools are at the teacher's disposal including games, drills, dramas, mock stories, and mock banks. The basic teaching tool, however, as stressed by economics professor, Lawrence Senesh, is the very lives of the children themselves. (13:53) All the social studies benefit from stress on economics since economics, as a study of how man organizes his existence to satisfy his needs, is common to all social sciences. If the same basic concepts are taken progressively from a different angle and in greater depth, first on the level of the home and then the school, neighbourhood, town, province, and country, then economics can play a truly significant role in the social studies curriculum. Children in their first years of school are full of curiosity about economic matters and, therefore, this is the best time to teach them. If the basic concepts of economics become an integral part of a spiralling social studies curriculum, children will acquire a base for thinking in economic terms and will deepen their understanding of the specialized social sciences. Senesh makes the following observation on this new approach to the teaching of economics in the social studies curriculum:

> This will represent a great advance over the traditional slap-dash social studies curriculum. If students can at least gain true insight into the nature of man and society, this will be man's salvation from himself. (13:54)

Every branch of the social studies in the nongraded system is based on the concept of method variation. Forming a rationale for this concept, Huber M. Walsh emphatically declares that there is no universal "skeleton key", no single best way to teach all children. Because each child has unique learning patterns, various instructional vehicles are needed to reach them. (15:196) While books, documents, and other printed materials may be the most effective keys to understanding for some pupils, one must admit that others with their individual learning patterns will find devices such as films, records, programmed materials, pictures, maps and charts more profitable. Hence, the necessity of using a variety of materials to suit the particular capacities of each individual student is unquestionable.

The new approaches to teaching social studies demand that a variety of instructional methods and materials be employed to meet the needs and interests of all students. This does not mean that traditional methods have no value. Sister Mary Kelly goes so far as to state that traditional methods are excellent provided they are used to the best advantage and are varied. (7:137) The textbook, for example, can play an important role in the student's development, provided that it has adequate charts, maps, pictures, and challenging questions to enable active participation on the part of the students. The handling of documents and the study of the local community also provide excellent opportunities for facilitating desirable changes in student behavior. Case studies can be dramatic, exciting means of effectively teaching important factual information. Such controversial issues as the major causes of labor riots in the nineteenth century, mass starvation in Biafra, the Civil Rights movement, the war in Viet Nam, and the space race can provide an effective vehicle for getting students to analyze various positions and become actively involved in justifying their own positions in a rational manner. For any of these issues to be dealt with effectively in the social studies curriculum, the teacher must make use of challenging questions, for they are the heart of the inductive method of teaching. If students are to appreciate social ideals and understand social relationships and concepts, such aids and techniques as described above must become part of the social studies curriculum.

Certainly it cannot be denied that there are wide variations of styles and strategies to be employed by the teacher. However, some basic guidelines that are of utmost importance in the nongraded social studies curriculum are elaborated upon by John Michaelis, Ruth Grossman, and Lloyd F. Scott. They stress that one essential for the social studies curriculum is the mode of inquiry of the historian and the other social scientists.

Students of the social studies must be given an opportunity to read critically, to analyze source materials as well as pictures, graphs, and documents. (11:265-266) Another vital emphasis in the social studies curriculum should be questioning. Teachers should ask questions which challenge the independent thinking ability of their students.

Instead of gathering and memorizing isolated facts, the social studies curriculum should guide students to organize and classify information around basic issues, problems, concepts, periods and regions. Not to be separated from the basic concepts are such basic skills as locating, organizing, and evaluating information, reading, listening, and observing, communicating orally and in writing, interpreting pictures, charts, graphs, and tables, and working with others. Skill development must be an important part of an integrated social studies curriculum. According to Michaelis, Grossman, and Scott, these skills include reading social science material, applying thinking processes to social issues and problems, interpreting maps, and globes, and understanding time and chronology. (11:267) The curriculum must provide for all students the opportunity to develop these skills in an increasingly complex or spiralling fashion. The final guideline to be noted here is that the integrated social studies in a nongraded system should emphasize going beyond the text to selected source materials and audio-visual aids which will greatly benefit the student's understanding of concepts and provide a suitable vehicle for the development of basic skills.

It is only realistic and practical to admit that social studies teachers are going to face difficulties in examining, revising, and organizing the social studies. One great problem lies in choosing from the growing mass of information in the social studies those elements which will be most useful to the students. Furthermore, the public will often fail to see the importance of social studies skills such as critical thinking and problem solving. (3:99) Provincial government requirements introduce an element of rigidity in the curriculum which makes it less responsive to social change. These difficulties certainly exist, but they can be overcome. Teachers of the social studies must exert a continuing effort to keep their integrated disciplines responsive to social change. They must reorganize content and integrate it by themes, problems, issues, and desired skills. For only when this is done will the social studies curriculum take on a new, significant, and meaningful role that will be directed towards desirable changes in behavior in the student.

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13

How Five Nongraded Schools Operate:

A REPORT OF VISITATIONS

In mid-March, 1969, the authors undertook a tour of New York State to visit five nongraded schools. Having read several books and articles which expounded the theory and philosophy behind nongradedness, we were quite anxious to see it in practice. Our trip took us from Amsterdam in 'upstate' New York, to Irvington and Hastings-on-the-Hudson, to Glen Cove and Valhalla. Although we have to admit that no one school seemed to comply fully with the theory of nongrading, each one did so to varying degrees in its own way. Some schools were very sophisticated in their implementation of the concept of nongradedness, while others were in varying stages of the development of their particular programs. In each school much was being done regarding grouping, improvement of teaching technique, curriculum development, and general implementation of concepts related to nongradedness.

The first school we visited, the Clara S. Bacon Elementary School in Amsterdam, New York, is one which has been constructed completely around the concept of nongradedness and continuous progress. The physical characteristics of the school plant would seem to be unique. Circular in shape, the school consists of nine classrooms, a science center, a math center, a social studies center, health center, language laboratory, a multi-media center, and an ampitheater. It was obvious that this school was designed to facilitate implementation of the concept of continuous progress.

In keeping pace with the changing emphasis and direction of their new programs, the concepts traditionally applied to the graded organization have been changed. The teachers and administrators realize that they must think in terms of individual abilities and progress rather than continually adhering to past practices. An expression of this concept being put into practice is shown by the elimination of the graded structure as such. The organization now includes four basic programs: **Alpha**—the pre-school program, including three basic levels or phases named mercury, venus, and earth; **Beta**—the kindergarten program, including four phases, mercury, venus, earth, and mars; **Gamma**—the primary program replacing grades one through three, and consisting of nine phases, each named after a planet in the solar system; and **Delta**— the intermediate section, replacing grades four through six and also consisting of nine phases named for solar planets. In this organization of phases or levels, there is ample room for implementation of the school's philosophy of individualizing the program for each student. Within the various programs much use was made of the different centers, such as science, math, social studies, the language lab, and the media center. These centers were used both for enrichment purposes and for remedial work. The media center attracted our attention for its novel implementation of the multi-media approach to learning. Formerly the library, this center contained books, tapes, art objects, films, film strips, records, and various types of posters, pictures, and slides. It seemed to foster a healthy attitude toward learning. Knowledge can be gained from other sources besides books. The curiosity and interest of the students was stimulated through this multi-media approach, and they seem to learn concepts more readily.

Following our tour of the school, conducted by the Principal, Mr. Riccio, we proceeded to the Administrative Headquarters for the Greater Amsterdam School District. This proved to be a most interesting visit. First, we toured the building and visited the visual aid center, the multi-media center, and the district's newly acquired museum. The visual aid center consisted of a room where posters, etchings, and various other visual aids were being made for distribution throughout the school district. These materials proved very helpful to teachers and were in great demand. During a typical period of one month, approximately twelve hundred items were distributed throughout the district from the center. The school district has twelve schools, and as teachers in any of these schools see a need for certain types of visual aids, they make their wishes known to the head of the center who sees appropriate materials are forwarded.

In the multi-media center, kits were prepared for circulation throughout the school systems. The kit consisted of a cardboard box in which was placed posters, magazines, film strips, films and artifacts. Kits constructed in this way were made to tie in with various courses. In social studies, for example, if a class was studying Japan, they would use a multi-media kit centered specifically around this country. The million-dollar museum, recently bestowed upon the school system, provides much in the line of artifacts and books related to various countries and fields of study.

Our visit to Amsterdam was concluded by a discussion with the district school superintendent. We learned that the philosophy of nongradedness was being implemented on a district-wide basis, including all twelve schools. There appeared to be rather strict supervision of teachers by the superintendent, but also a great deal of co-operation between teachers and the superintendent in implementing programs. The superintendent kept a record of the development and achievement of each child in the system. The stress, from a nongraded point of view, is on the language arts. In the language arts, there is a co-ordinator for the whole district. He works with the teachers and co-ordinates the reading program. The Houghton-Mifflin series is used throughout. There is a reading center in the headquarters building which is available to students and teachers in the district. Within the total reading program, there are various basic and supplementary programs available, depending on the needs of particular students. The teacher and the system co-ordinator of reading decide jointly in which program a student should be placed. A very complete enrichment program is also used, with various suggested activities. There is a great deal of grouping done in the schools. Each child is grouped according to his particular needs, and the teachers, counselors, and reading co-ordinator decide jointly what program or particular group best meets the needs of each student. This involves a flexible system of scheduling in which each student's activities are carefully co-ordinated. A variation of the standard report card is used at present as a means of reporting pupil progress. This, coupled with parent conferences, temporarily fills the need in this area, but research is being conducted to devise a more efficient method. The most serious difficulty experienced in Amsterdam, we were told, is that of teacher-turn-over. Many teachers come here for the benefit of learning the new methods and then move on. An extensive two week orientation period is conducted for new teachers. In addition to this, there are in-service workshops which bring teachers up-to-date on new ideas and developments. They seem to be enjoying a great deal of success with their programs in Amsterdam and continually change these programs as the need arises.

During our visit to Hastings Elementary School at Hastings-on-the-Hudson, we were introduced to a method of implementation of the nongraded concept as adapted to the particular needs of the school. When their particular program was first introduced, there was much movement of children and teachers. However, mainly due to poor school construction, teachers became dissatisfied with this arrangement and returned, for the most part, to the self-contained classroom. There is still movement of children for mathematics, but on a much smaller scale than at first. During their experiences early in the program, the teachers became aware of how important it really is that the program be adapted to the needs of the children—and not that the children adapt themselves to the program. This realization led to some very interesting developments within the self-contained classroom.

Still very strongly committed to the philosophy of nongradedness, the teachers developed their own programs of individualized instruction, grouping, and continuous progress. In one particular classroom where we spent much time, there were excellent examples of grouping, individualized study and instruction, and children progressing at their own rates—all this within the self-contained classroom! On entering the room, we saw some strange sights. There were no neat, orderly rows of desks, and each child seemed to be doing something different. Some worked on special projects; others were viewing film-strips; a few using teaching machines, and still others were doing reading exercises. During the course of an extensive discussion with the teacher and through observation, we found that despite our earlier apprehension, she knew exactly where each child was, what he should be doing, and what his capabilities were. The children were busy; they were happy; and they were learning! The children were in a program developed mainly by the teacher to suit the needs of each individual child. They worked in groups or individually, as their needs and abilities warranted. A multi-media approach was used here, though not as extensively as in Amsterdam. Great use was made of films, film-strips, posters, artifacts, teaching machines, and books.

Detailed records were kept concerning each child and his progression through the various phases of the program. If any child displayed a need for special help in any area, the teacher saw to it that he received it. Remedial programs were used throughout the school under the leadership of the principal. In such a setting, optimum use is being made of teachers, curricula, and materials. Children are engaged in meaningful activities, while progressing at their own rates under the guidance and supervision of the teacher. In short, an honest, sincere effort is being made to meet the particular needs of each individual child as these needs arise.

The third school we visited was the Irvington Elementary School whose philosophy centers around the objective of continuous progress for all students through programs of individualized instruction. Present program modifications are concerned with the refinement of individualizing practices, with teachers being placed in a team arrangement throughout the elementary school. Adding significantly to this organization is the theory of discovery which is designed to encourage each child's intellectual curiosity. The vehicle for this approach is the nongraded school which continues with phasing a flexible academic program in the junior-senior high school.

Before entering kindergarten, all children are examined by the school psychologist, the nurse, and the speech teacher. The nurse and the speech specialist gather pertinent health information, and the psychologist, with the assistance of the kindergarten teachers and principal, administers a testing program designed to give some indication of the child's level of maturity. Each child is tested for such things as awareness of himself and his world, the concept of spatial relationships, manual dexterity, vocabulary, number concept, visual perception, educational attainment, neurological development and I. Q., as determined by the Goodenough Draw a Man Test.

The items are then scored, and on the basis of the results, the psychologist makes a judgment as to each child's level of maturity. With the maturity index as a guide, most children are placed in kindergarten sections. The children in each section span the full range of individual variability. Some children who possess an advanced level of maturity are placed in K-1 class. This class is composed partly of children whose pre-school experiences and corresponding maturity seem to indicate a readiness for post kindergarten work. The balance of the students in K-1 are children who have spent a year in kindergarten but still seem unready for a first grade program. Since there are two entirely different types of children in this class, instruction is highly individualized and flexible enough to meet the needs of the students. At any point in the school year, it is possible for a child to filter into a first grade program.

The primary complex is staffed by fifteen teachers representing grades K-2 who have been divided into three teaching teams, with five teachers in each team. Each team consists of one kindergarten, two first and two second grade teachers. Students are assigned to each team on a heterogeneous basis. Teaching responsibility is left up to the team, with the children being divided for whatever purposes they deem necessary. All children, except those working on advanced programs and those exhibiting behavior detrimental to the best interest of the team, remain with the group for three years or until the completion of the primary unit.

The students in grades three through six are organized in two heterogeneous groups called the 3/4 and 5/6 complexes. The 3/4 complex is composed of ten teachers who have been divided into three teaching teams. Each team instructs pupils who span the full range of mental, physical, emotional, and social development. Age has nothing to do with placement, so that traditional third and fourth grade students may be found in each class. Pupil programs are designed on an individual basis by each team. Some departmentalization at this level has been introduced. Most students will remain with the same team for the next two years or until ready for the 5/6 complex. The 5/6 complex operates in much the same way. Representing the last two years of the elementary school, it tries to function in such a way as to make progressing to secondary school a logical next step.

Each teacher on a team is fortunate to have at her disposal a wide range of specialists. These specialists are available for specific instruction and for consultation. The supporting staff includes two librarians, two choral music teachers, one instrumental music teacher, two art teachers, two physical education teachers, one nurse, one math specialist, one reading and language arts consultant, one part-time psychologist, one part-time counselor, one part-time speech and hearing specialist, one laboratory skills teacher, two half-time teachers, and one teacher aid.

Also providing a vital service for the instructional staff is the "skills laboratory". The skills laboratory is designed for those children who show a substantial gap between their achievement and ability; who display an apathetic attitude toward their assignments, and/or who need intensive individualized assistance with a particular skill. The laboratory is equipped with a variety of materials which appeal to a broad range of interest. Staffing the laboratory is a teacher who works in close relationship with each teaching team. There are two labs, one for the primary and 3/4 complexes and one for the 5/6 complex. Also available to the 5/6 complex is a guidance counselor whose total assignment covers grades 5 to 8. The counselor works with students, teachers, and parents on personal as well as instructional problems. Since approximately fifty percent of the students in the 5/6 complex will be going on to junior high school, he also helps to smooth the transition from one school to another.

Regarding reporting student progress, the focal point is the parent-teacher conference which is held a minimum of two times per year for every student. In addition to the conferences, narrative reports are made at mid-year and at the close of school for all students in the primary and 3/4 complexes. In the 5/6 complex, a formal pupil progress report is employed. This progress report contains elements in common with the secondary school, using letters and phase designations along with space for short comments. Additional conferences are suggested whenever necessary at all grade levels.

Since the elementary school program is designed to facilitate the continuous progress of each child, the kind of program needed to develop this sequence must center around individualized grouping patterns. As children advance along this continuum, flexibility in relationship to the changing needs of the student becomes increasingly important. Through this type of organization, each child's educational needs have become more meaningful and personal.

Next we visited the Middle School which is located in Glen Cove on Long Island, New York. Middle School, by nature and purpose, seeks to provide a transition for upper elementary school age children from primary to secondary school. This transition can be expressed in such forms as geographical, social, organizational, and academic.

The Middle School has as its prime function presenting a continuous set of learning experiences which will enable the child in the intermediate program to pass more successfully into the secondary educational program. The combination of these transistional factors with the expressed purpose of the Middle School mandates a definite posture that must be utilized in relation to the placement of children in the school. The criteria used for the general placement of children takes into account academic ability, sex of the student, and the location of the sending school. These factors are combined so that each student team has a range of at least five grade levels of ability; a percentage of boys and girls; and a percentage of children from each of the sending primary schools. This formula permits the Middle School to "homogenize" the district.

Children, being what they are, do not always fall into the program planned for them. Approximately ten per cent of them must be put into one of two categories; skill deficient or socially-emotionally immature. There is some overlapping between these two categories. The skill deficient group are lacking in reading and mathematics skills. The second group have been found not to be ready to adjust to a more formal organizational program which entails adapting to more children and teachers than in the traditional self-contained classroom. Each transitional class in these categories must not exceed sixteen pupils.

The Middle School's team teaching arrangement is one of its unique characteristics. The school plan lends itself to this situation by having moveable walls so that two classes can easily be made into one. No where could there be seen straight rows of desks as in the traditional schools, but various groups working together is a common sight. There are two different types of teaching teams — the vertical and the horizontal. A vertical team is composed of a group of teachers who have particular strengths, abilities, and/or interests in a given curriculum. Each horizontal team has representatives on every vertical team. A vertical team was in existence for science, social studies, language arts, and mathematics. The main purposes of this team were four:

1. To serve as a means of communication between teams at the same grade level;
2. To serve as a means of communication between the grade levels so that there can be a better understanding and knowledge of the total program;
3. To promote a better and greater scope for the planning of a curriculum area; and
4. To foster the beginnings of a total curriculum which is more consistent with the organization of the Middle School and the needs of its pupils.

The horizontal team teaching approach is an organizational pattern whereby two or more teachers working together cooperatively plan, teach, and evaluate a substantial amount of the curriculum for the same group of children. The main objectives of the horizontal team are:

1. To increase the potential for flexibility of grouping;
2. To utilize the talents of teachers by allowing greater use of specialization in terms of teaching and planning;
3. To increase the potential for teacher communication on matters relevant to instruction;
4. To foster the concept that curriculum can and must be geared to the needs of the individual;
5. To permit greater individualization of instruction.

The instructional teams are referred to as the horizontal teams. They have the authority and responsibility to regroup children, design schedules, conduct parent-teacher conferences and arrange for field trips.

The principal, Dr. Donald, stated that he could not over-emphasize the role of the teacher. It was no one other than the teacher that made a program of this nature work. He was fortunate that during the school year he had student-teachers coming into his school as part of their training. These student-teachers were of immense aid to the team.

Valhalla was the last school we visited on our journey. It is a comprehensive junior-senior high school located in the community of Valhalla about five miles north of the city of White Plains, New York. It has a student enrollment of over 1,000 pupils. The School District includes parts of the Towns of Mount Pleasant, North Castle, and Greenburgh and is primarily a residential suburban and middle income community with a total population of about 8,000. Approximately 70 per cent of the graduating class go on to post-high school education.

The faculty is under the leadership of the principal, Mr. Richardson. The total faculty numbers seventy-two. Of these, 83 per cent have five or more years of college preparation. The school offers an extensive program of studies. In addition to the required four years of English and four years of social studies, there are major sequences offered in the fields of art, business, foreign languages, homemaking, industrial arts, mathematics, music, science, stenography and vocational education.

The philosophy of the school accepts the fact that children do learn at various rates of speed, that all children have various capacities, and that all children achieve at different levels. The administrative design for the program is based on the premises that the more individualized one can make instruction, the more the learning process will be enhanced. The more individualized the instruction, the more apparent becomes a child's strengths and weaknesses. Early identification of these strengths and weaknesses enables the school to take immediate steps towards meeting the needs of the pupils.

In talking with Mr. Richardson, we learned that the non-graded approach really only involved grades seven and eight. He hopes to include nine in the near future, possibly next year. The reason given for the difficulty involved in implementing non-gradedness in the senior high grades was the many requirements of the State Education Department. For example, all students in New York State must write regent exams, and many school districts also have what is known as district exams. Mr. Richardson was of the belief that the trend in the State Education Department was toward eliminating the regent exams. For this reason, he looked with optimism towards totally nongrading his high school in the near future.

Now, how exactly did nongradedness work in what generally is considered grade seven and eight? Let us take, for example, the language arts and mathematics curriculum. The curriculum is divided into what is called "phases". Each pupil is initially placed in a phase according to innate ability tests, other objective tests in language arts and arithmetic, past achievement record, teacher recommendation, and teacher made evaluation devices. No time element is required in any phase. A pupil proceeds from one phase to another when he is ready to move. A pupil is always evaluated according to his academic achievement in the phase in which he is placed. In reporting student progress, the grading system remains basically the same. A signifies superior work; B—good work; C—average; D— the lowest passing grade, and F signifies failing work. The achievement grades noted above are always written in capital letters. A lower case letter, which accompanies each capital, denotes the phase in which the child is performing. For example, a mark of Ag means that a child is doing superior work in phase "g". Each curriculum may have a different number of phases. There are fourteen phases in the language arts program in the elementary school, lettered a to n whereas in the junior high school language arts program, there are four phases—o to r.

Mathematics has thirteen phases in the elementary school (a-m) and six phases in junior high (n to s). In reporting pupil progress to parents, the report card is one method used. The other involves parent-teacher meetings. These meetings are held at least twice a semester and have been found very beneficial as a supplement to the regular report card.

In order to get the most benefit from the nongraded program, teachers found it necessary to develop their own curriculum. This development on the average took two years to complete. Much of the work was done in summer courses, and the teacher received six credits toward his license.

At the senior high school level, Valhalla has a rather sophisticated program. It is simply known as "DIS" or "Directed Independent Study". Forcing some students to follow a stereotyped program of studies often results in loss of interest and initiative. It is the object of this program to identify such students and direct them into a meaningful and challenging educational experience. The students are admitted into the program on the following bases: academic record, teacher recommendation, approval of the Director of Guidance, and the Director of the program, the principal's recommendation, and parental consent. It might be added that the teacher's recommendation carries perhaps the most weight.

The program presents participating students with a privilege—that of determining their own activities in lieu of regular class attendance. It works this way: in applying for the program, the student specifies a definite project that he wishes to undertake. Once enrolled in the program the student is free to use the time he would have spent in a specific class on "independent study". He may do this independent work in a laboratory classroom, library, or anywhere else his needs may take him. The basic differences between this program and many other independent study programs is that it is directed or guided. Staff members play an important role. A guidance counselor and an advisor are assigned to each student. The advisor is usually the classroom teacher of the subject the student is studying, or a staff member who is familiar with the student's chosen field. A participating student's first act is to get together with these two people. In this conference, the student outlines his objectives and project plans. The staff members suggest (they never demand) ways in which the student might clarify his objectives and/or improve his approach. These early meetings are crucial and must be handled with care by the staff members.

But staff direction does not end here. Participating students must meet with their guidance counselors each morning before school begins to arrange their free period activities. Students must also meet with their teacher-advisors at least once every two weeks, although these meetings are generally more frequent. At these meetings students also turn in their written reports on their activities and findings. In order to remain in the program, the student must maintain a B average. He must write all the major exams and papers in his regular class. Although class attendance is not necessary, the student is responsible for the work done in the class.

In talking with a group of students in the DIS program, it could be seen they were very mature and intelligent. They seemed very much concerned about society and just how they would fit into it once they left high school.

Valhalla High School is accredited by the University of the State of New York and the Middle Atlantic States Association of Colleges and Secondary Schools. In a student's senior year, he may write an "Advanced Placement Examination". Depending on his marks, he may be given college credits in the subject he writes. Just last year a student was accepted into Harvard in his Sophomore year from Valhalla. Eighty-nine percent of the students who wrote the exams said the program aided them considerably.

Before we left Valhalla, we had an interview with the Superintendent of Schools for the district. He described to us the new school they are planning to build. It is an entirely new concept in school plants. There is to be no classroom as such. The whole school is open and the only way one can designate the different levels of pupil achievement is by the colored rugs. The teacher will push a button and an audio-visual aid such as a projector, will come out of a spot on the floor or will come down from the ceiling. The superintendent said that "this school could not help but be nongraded".

It became evident as we moved from school to school that there are probably as many interpretations of the concept of nongradedness as there are interpreters—and rightly so! Each nongraded program, while adhering to the basic philosophy of individual differences among students and the concept of continuous progress, must be adapted to the needs of the particular area, school, and students. Thus, we found several different methods and procedures of implementing nongraded programs as we visited the five schools.

There are several things which stand out in our minds when reflecting back on these schools. The first would certainly be the atmosphere in each school, an atmosphere conducive to learning. The absence of a rigid basic structure in the programs made the school an interesting place for each student. At last, it is being realized that the school exists for the student! There is a relaxed, comfortable atmosphere, tempered by the sights and sounds of busy students. Teachers seem to have excellent rapport with their students and with each other. The whole educational process is a co-operative venture.

One of the basic prerequisites for the success of any educational venture would seem to be good teaching. The need for this is made alarmingly clear within the nongraded structure. This very point was pressed home to us time and again during our visits to schools by administrators, teachers, and students alike. Teachers must be receptive to new ideas and new trends in education. They must be genuinely concerned with the intellectual, moral, and social development of students, and be prepared to use methods and techniques which will best serve these concerns. Teachers must be co-operative and helpful, not only with students but with administrators as well. They should not resist change, but should not advocate change merely for the sake of change. They should not view any proposed change from the point of view of the responsibilities and work entailed, but with this question in mind—how will this innovation help our students? In all the schools we visited, we noticed a definite change in attitude and behavior in teachers and students alike, as opposed to that found in the traditional graded structure. Teachers were more concerned for their students as individuals with unique problems and needs. Students have begun to accept more responsibility for their own education and co-operate remarkably well with teachers and administrators.

During our visits to the five schools discussed above, we received full co-operation from administrators, teachers, and students. We should like to express our appreciation and thanks for their hospitality and friendliness. This contributed greatly toward making it a thoroughly enjoyable and rewarding learning experience.

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A basic comparison of pupil outcomes in graded and nongraded settings.

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Selected Places to Write for Materials concerning their Nongraded Continuous Progress Programs and Procedures

Prepared by

Dr. Maurie Hillson
Rutgers — The State University of New Jersey
The Graduate School of Education

(When you write to these people, please do indicate that you will remit payment if there is a charge for the materials.)

Unless otherwise indicated, it will be assumed that the program is in the public schools. So, address your correspondence to the Superintendent of Schools of that community.

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WASHINGTON, D. C.
The Model School Division Schools

WEST VIRGINIA
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The following places have developed booklets or items that describe their programs.

Shamokin, Pennsylvania

Roaring Brook School, Avon, Connecticut

Columbus University Laboratory School
2211 Seventh Street
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The Orange Plan
Cleveland, Ohio

Ithaca (New York) Public Schools

Liverpool (New York) Central Schools

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Englewood, New Jersey

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The Falk Lab School
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Setauket Junior High School, Setauket, New York

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Some of the better report cards that have been created are as follows:

The Middletown High School Report Card

The Progress Reports of Van Dyke, Michigan

The Progress Report of Palm Beach, Florida

The Progress and Reporting Forms of Appleton, Wisconsin

The Cumulative Folder of Rye, New York

The New Report Card of West Hartford, Connecticut

The Directed Parent-Teacher Conference Activity of North Syracuse, New York

The Weighted Grade Program of Amherst High School
Amherst, Massachusetts